

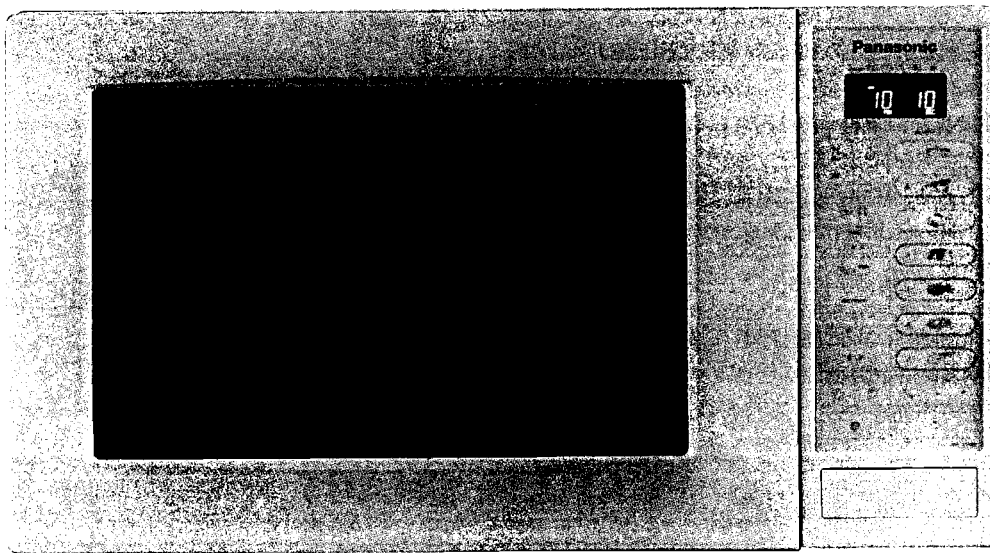


PANA -10061

ORDER NO. MOP9609024C2

Service Manual

Microwave Oven

NN-B706B**NN-B756B**

Specifications

Power Source :	230 V AC Single Phase 50 Hz
Power Requirement:	Microwave: 1470 W Maximum: 1480 W Grill: 1260W Conv: 1480W
High Frequency Output :	900 W (IEC-705)
Microwave Frequency :	2450 MHz
Timer :	99 Min. 99 Sec.
Outside Dimensions :	510 mm (W) x 500 mm (D) x 305 mm (H)
Oven Cavity Dimensions :	330 mm (W) x 330 mm (D) x 211 mm (H)
Weight :	22 Kg

Specifications subject to change without notice

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Please refer to the country identifications shown below for your application product specification.

SPG For Scandanavia

WPG For Switzerland

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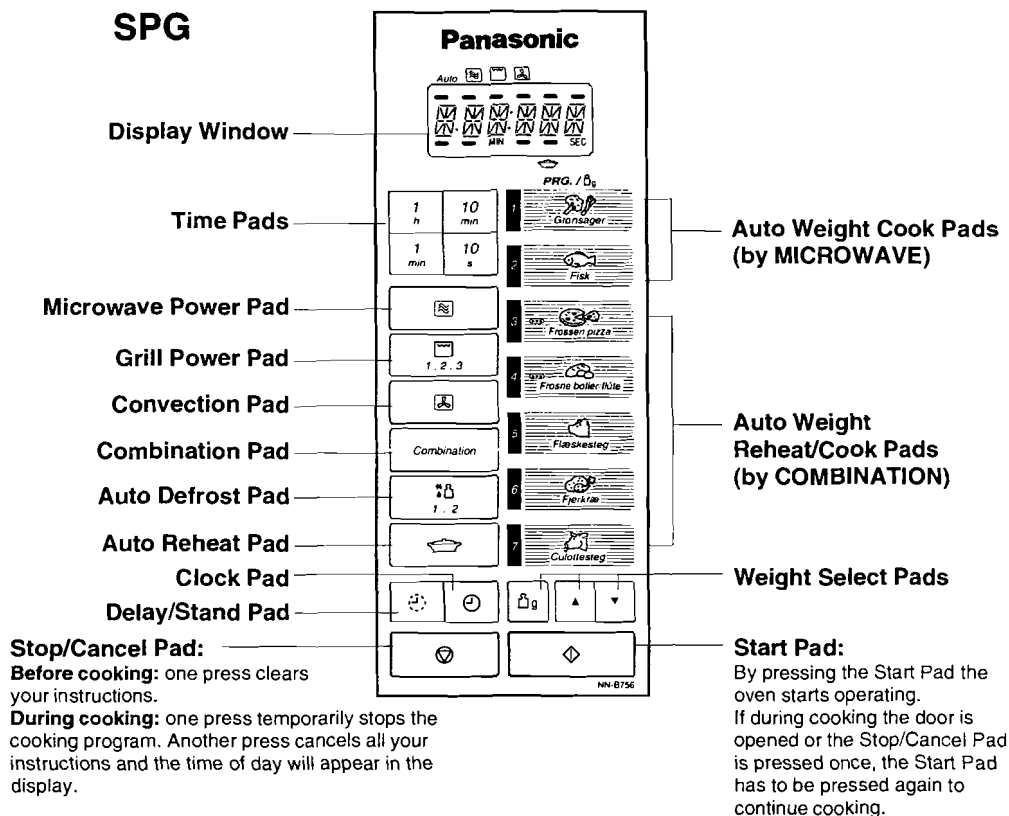
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FEATURE CHART

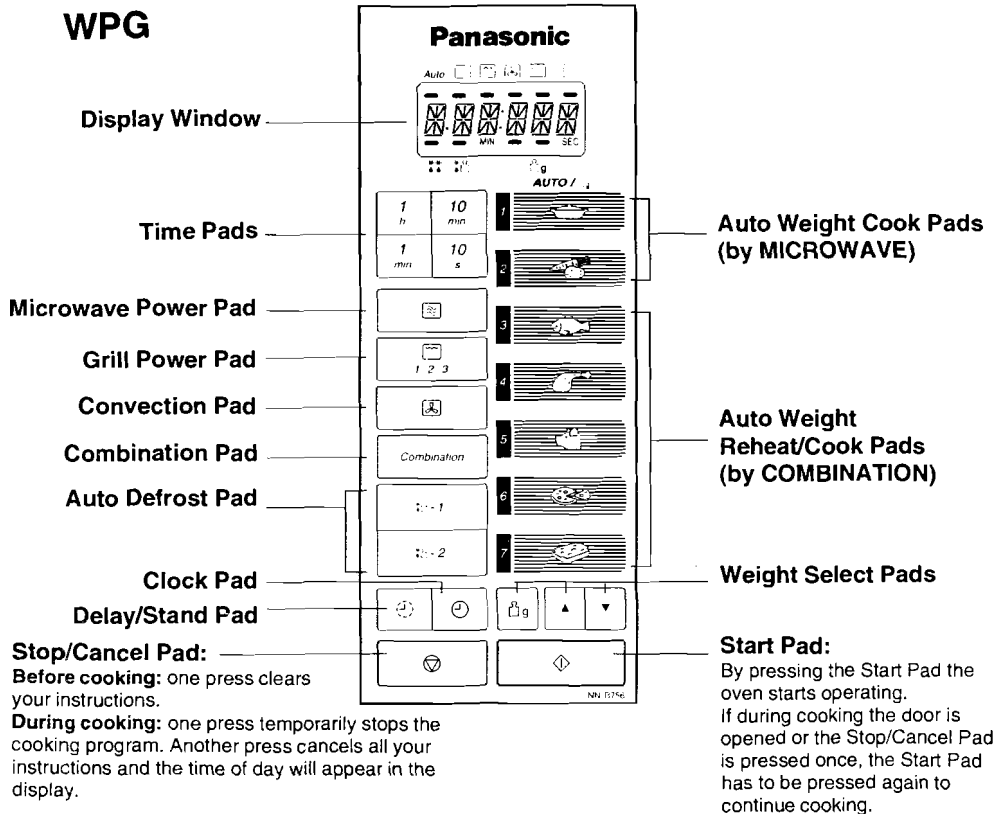
FEATURE	MODEL	NN-B706B NN-B756B	
		SPG	WPG
DIGITAL CLOCK		○	○
DELAY/STAND		○	○
COMBINATION		○	○
CONVECTION		○	○
GRILL		○	○
AUTO WEIGHT PROGRAMS		○	○
AUTO WEIGHT COOK		MENU 1-7	MENU 2-7
AUTO WEIGHT DEFROST		MENU 1-2	MENU 1-2
AUTO WEIGHT REHEAT		MENU 1	MENU 1
DEMONSTRATION MODE		○	○
CHILD LOCK		○	○
WORD PROMPT		○	—
STAGE COOKING		3	3

CONTROL PANEL

SPG



WPG

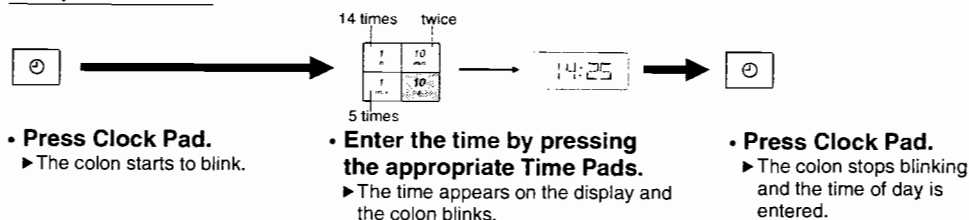


QUICK GUIDE TO OPERATION

Controls and Operation Procedure

CLOCK SETTING

Example: To set 14:25



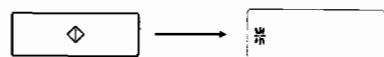
NOTE:

1. To reset the time of day repeat steps 1 through 3.
2. The time of day is displayed, unless the power supply is interrupted.
3. This clock has a 24 hour display.

CHILD SAFETY LOCK

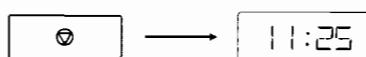
Using this system will make the oven controls inoperable; however, the door will open. Child Lock can be set while the display shows a colon or time of day.

To Set:



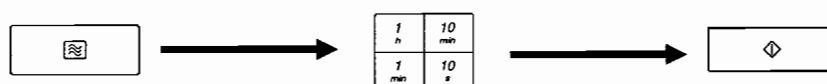
- **Press Start Pad three times.**
▶ Time of day will disappear. Actual time will not be lost.

To Cancel:



- **Press Stop/Cancel Pad three times.**
▶ Time of day will reappear on the display.

Microwave Cooking and Defrost

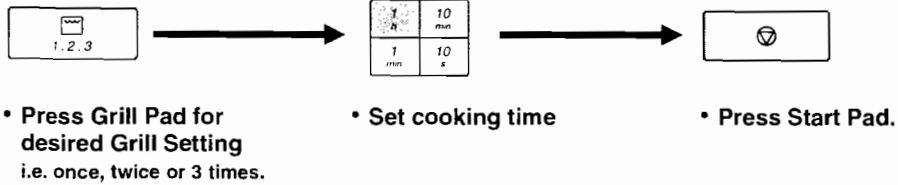


- **Select Micro Power Level.**
- **Set cooking time.**
- **Press Start Pad.**

Grilling

The Grill Pad provides 3 Grill settings.

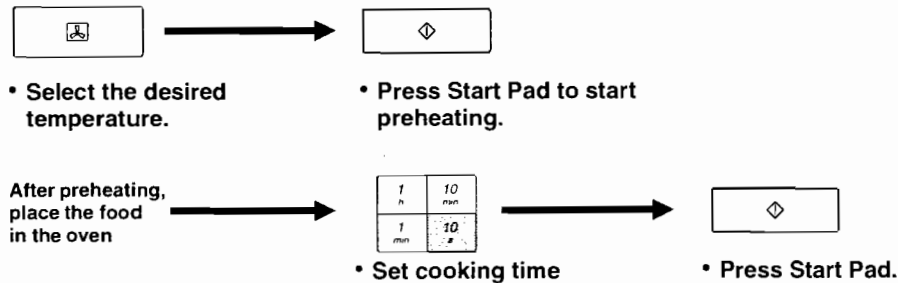
Press Grill Pad once for Grill 1 — High setting (1200 W)
twice for Grill 2 — Medium setting (950 W)
3 times for Grill 3 — Low setting (700 W)



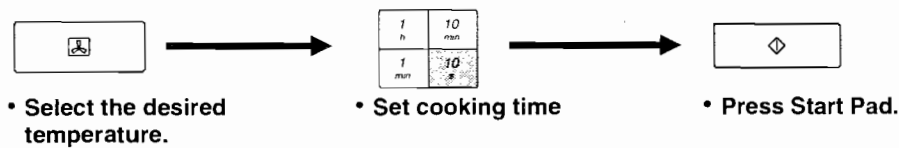
Cooking by Convection

This Pad offers a choice of convection temperatures from 40 - 250°C in 10°C increments. For quick selection of the most commonly used cooking temperatures, the temperatures start at 150°C and count up to 250°C then 40°C and 100°C.

Cooking with Preheating:



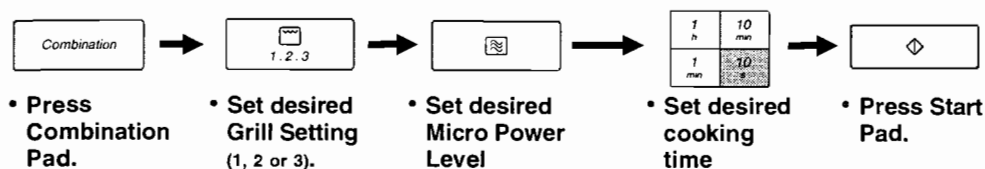
Cooking without Preheating:



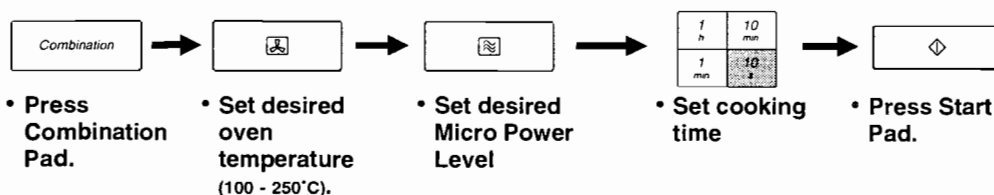
Combination Cooking

There are 3 combination settings: 1) Grill 1, 2 or 3 + Microwave 440W, 250W or 100W
 2) Convection 100°C - 250°C + Microwave 440W, 250W or 100W
 3) Convection 100°C - 250°C + Grill 1, 2 or 3

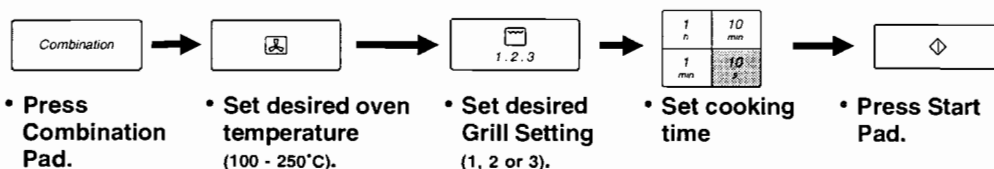
1) GRILL + MICROWAVE



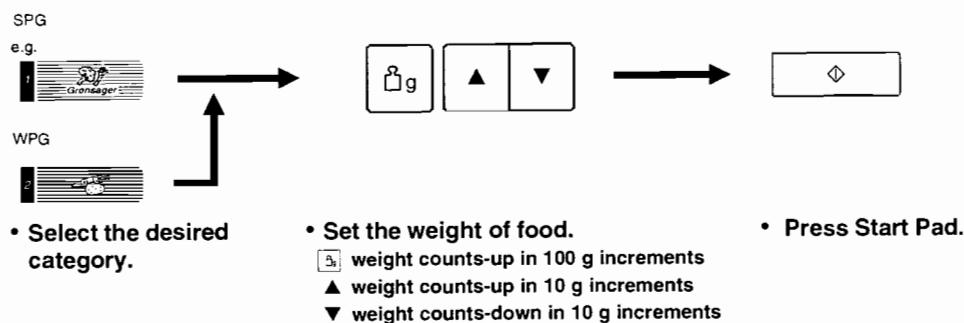
2) CONVECTION + MICROWAVE



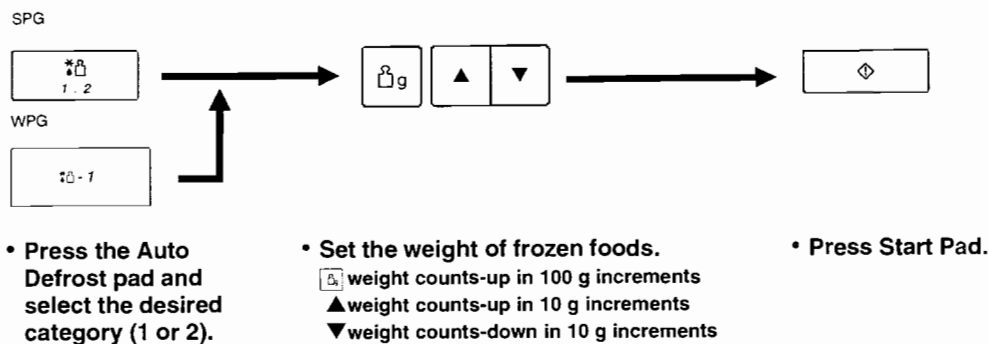
3) CONVECTION + GRILL



Auto Programs

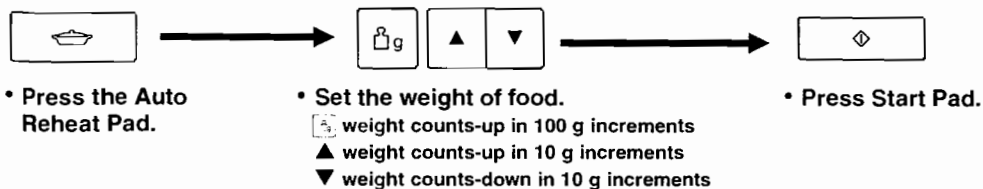


Auto Defrost



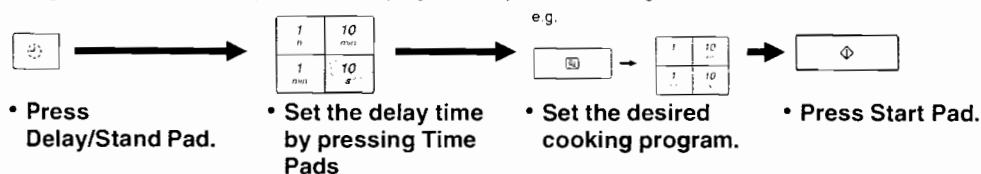
Auto Reheat

SPG ONLY



Delay Start Cooking

Using the Delay/Stand Pad, you are able to program Delayed Start cooking.



NOTE:

1. Three stage cooking can be programmed including Delayed Start cooking.

e.g. Delay Start: 1 hour High Power: 10 min. Simmer Power: 20 min.



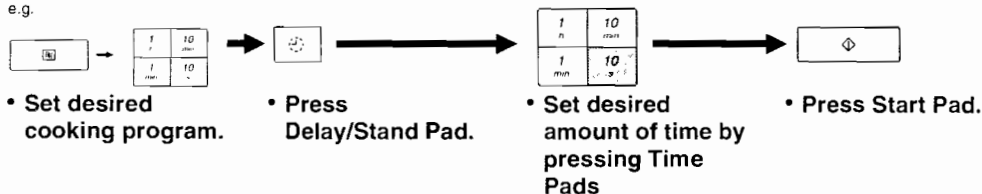
2. If the setting delay time exceeds one hour, the time will count down in units of minutes. If it is less than one hour, the time will count down in units of second.

3. Delay Start cannot be programmed before any Auto Programs.

Stand Time

Using the Delay/Stand Pad, you can program a Stand Time after cooking is completed or use to program the oven as a minute timer.

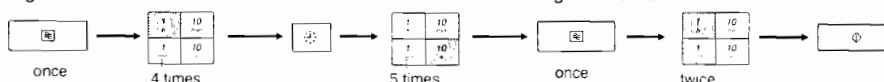
e.g.



NOTE:

1. Three stage cooking can be programmed including a Stand Time.

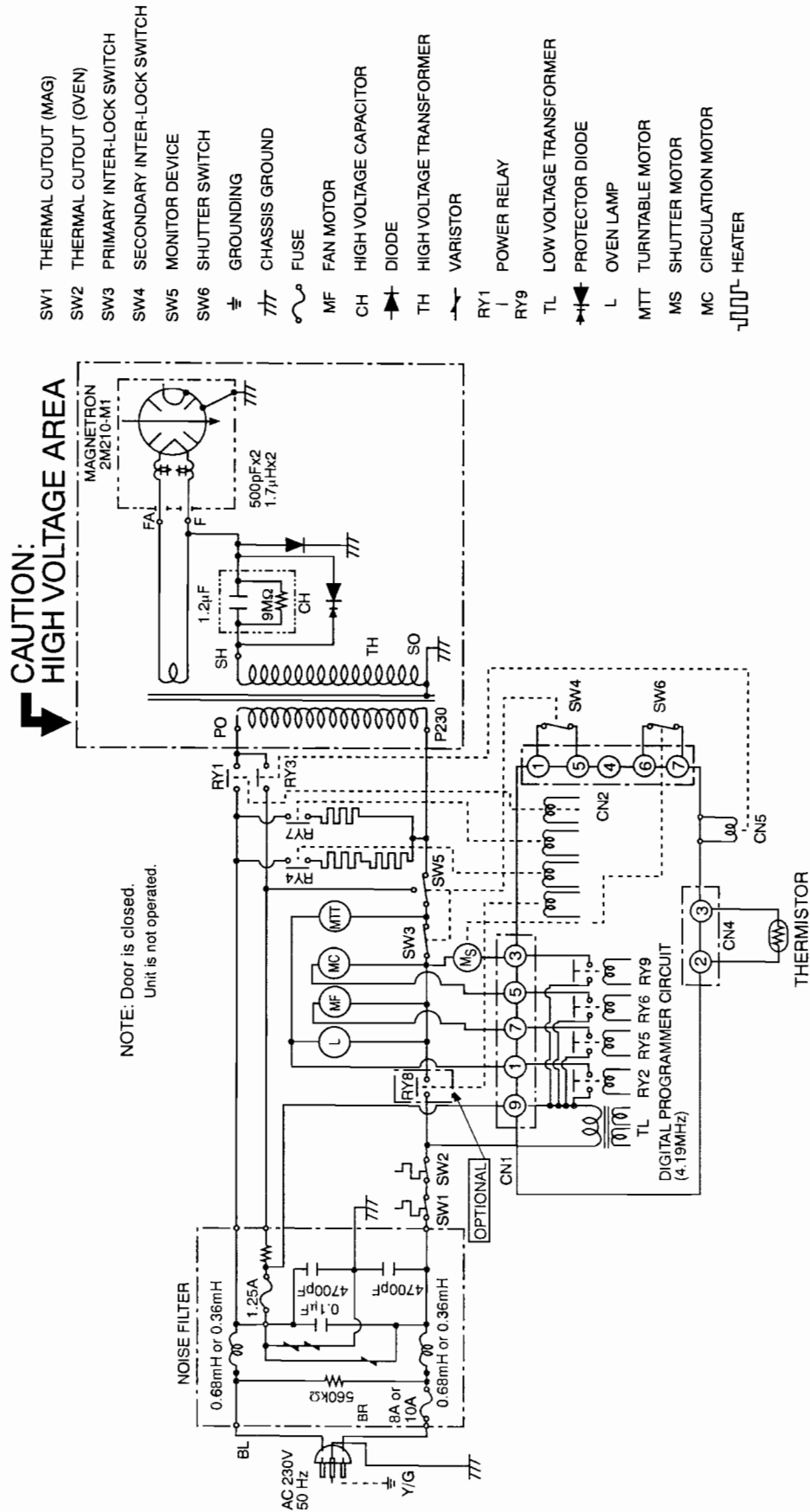
e.g. High Power: 4 min. Stand Time: 5 min. High Power: 2 min.



2. If oven door is opened during the Stand Time or Minute Timer, the time in display window will continue to count down.

3. This feature may also be used as a timer. In this case do not enter the third step.

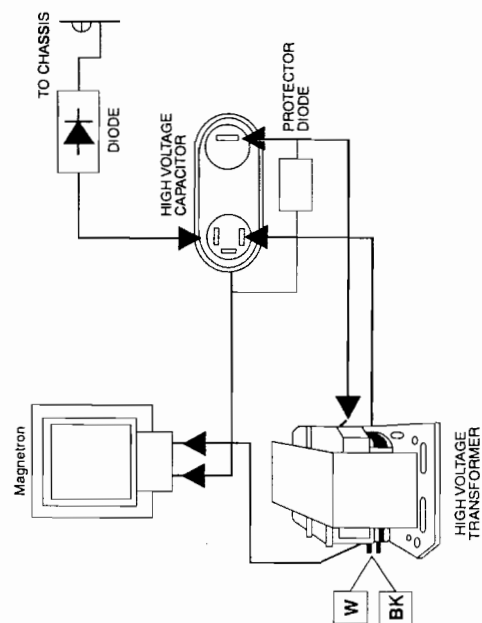
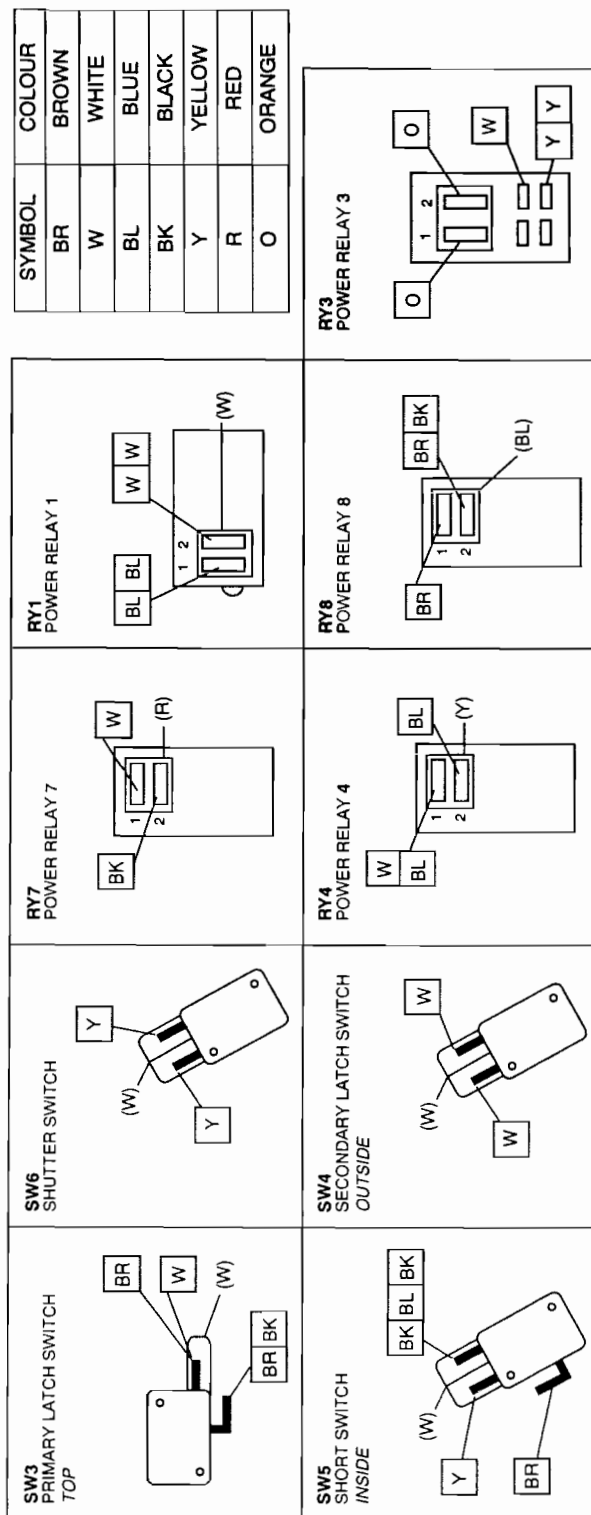
SCHEMATIC DIAGRAM



WIRING INFORMATION

WIRING DIAGRAM

NOTE: When replacing, check the lead wire colour as shown.
 Colours as shown by () indicate colours of lead wire connector housing.



REF NO.75 NOISE FILTER (U) E692Y5670GP

REF NO.	PART NO.	DESCRIPTION	QTY	REMARKS
C1	ECQU2A104MN	Polyester capacitor	1	0.1μF 250V 20%
C2, C3	ECKDMS472MEX	Ceramic capacitor	2	0.0047μF 250V 20%
CN1	AEEEMMA00703W	Connector	1	3 Pin
F1	A62316010BP	Fuse holder	2	8A
F2	A62316000BP	Fuse holder	2	1.25A
L1	A621A5540GP	Filter coil	1	
R1	ERF10ZXJ240Z	Resistor	1	240 10W
R2	ERD25FJ564S	Carbon film resistor	2	560KΩ 1/4W ±5%
ZNR1	ERZC10DK621F	Varistor	1	
ZNR2, 3	ERZC10DK112A	Varistor	2	

NOTE: The above noise filter part numbers are supplied by
 M.O.D. Japan.

DESCRIPTION OF OPERATING SEQUENCE

1. Variable power cooking control

The coil of power relay 1 (RY1) is energized intermittently by the digital programmer circuit, when the oven is set at any power selection except for High power position. The digital programmer circuit controls the ON-OFF time of power relay 1 contacts in order to vary the output power of the microwave oven from "Warm" to "High" power. One complete ON and OFF cycle of power relay 1 is 22 seconds.

The relation between indications on the control panel and the output of the microwave oven is as shown in table.

NOTE 1: The ON/OFF time ratio does not correspond with the percentage of microwave power since approximately 2 seconds are required for heating of magnetron filament.

POWER SETTING	OUTPUT POWER (W) APPROX.	ON-OFF TIME OF POWER RELAY 1(RY1)	
		ON(SEC)	OFF(SEC)
HIGH	900	22	0
DEFROST	270	9	13
MEDIUM	600	17	5
LOW	440	13	9
SIMMER	250	8	14
WARM	100	5	17
CYCLIC DEFROST	APPROX. 250	Please refer to description of cyclic defrost	

2. Cyclic defrost

When defrost power and defrosting time is selected and Start pad is touched:

- (A) The digital programmer circuit (DPC) divides the total defrosting time into 8 equal periods, consisting of four defrosting periods, each followed by a standing period.
- (B) During defrosting power periods, power relay 1 is energized for 9 seconds and de-energized for 13 seconds by DPC.
- (C) During Standing periods, power relay 1 is always open resulting in no microwave power.

NOTE: Defrost time selected is converted into seconds by the DPC but display will show selected time in minutes and seconds as programmed. The total number of seconds is divided into 8 time periods. The remainder (seconds not equally divisible by 8) are added to the last standing time period.

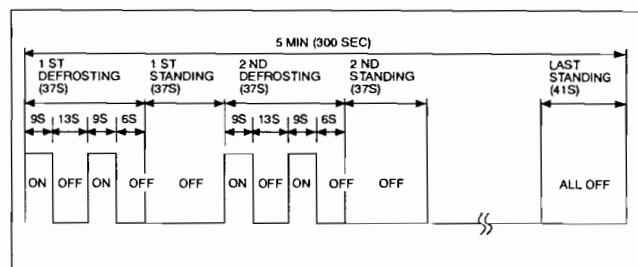
Example 1: If defrosting time is selected for 5 minutes, each operating period will be as follows:

5 minutes = 300 seconds

$300/8 = 37$ and remainder is 4 seconds.

The 4 seconds is added to the last time period.

NOTE: When defrosting time is selected for not more than 7 seconds, the power relay 1 will not be energized at all.



3. Grill Cooking

There are three variable grill power.

The digital programmer circuit generates the power relay 4 control signal at ON-OFF time as shown in the table.

MANUAL GRILL DUTY

	ON (SEC)	OFF (SEC)
GRILL 1 (1200 W)	33	0
GRILL 2 (950 W)	26	7
GRILL 3 (700 W)	19	14

NOTE 1: After 20 minutes the duty cycle will automatically switch to 19" on 14" off (Grill 3). If the door is opened during operation, the timer will be reset and will count another 20 minutes.

4. Combination cooking

Combination cooking is accomplished by microwave and grill cooking. It can select grill power (1-3) and microwave power (MED-WARM). The digital programmer circuit controls ON-OFF time of power relay 4 as shown in the table.

NOTE: After grill and combination cooking, if oven temperature is over the predetermined temperature, fan motor rotates to cool oven and electric components.

MANUAL COMBINATION DUTY

	HEATER			MICROWAVE	
	ON	OFF		ON	OFF
GRILL 1 (1200 W)	66	0	LOW (440W)	33	33
GRILL 2 (950 W)	52	14	SIMMER (250W)	16	50
GRILL 3 (700 W)	38	28	WARM (100W)	8	58

NOTE 2: After 10 minutes the duty cycle will be changed to 38" on 28" off (Grill 3). If the door is opened during operation, the timer will not be reset and will not count another 10 minutes.

5. Auto defrost, and Auto Weight Combination Control

When the Auto control feature is selected and the start pad is pressed:

- (A) The digital programmer circuit determines the power level and cooking time to complete cooking and indicates the operating state in the display window.

The table shows the corresponding cooking times for respective serving by categories.

- (B) When cooking time in the display window has elapsed, the oven turns off automatically by a control signal from the digital programmer circuit.

NOTE: After Auto cooking, if oven temperature is over the predetermined temperature, fan motor rotates to cool oven and electric components.

6. Convection cooking

- (A) The digital programmer circuit generates the power relay 5, 6 and 7 control signals at a specific timing as shown in the figure.

- (B) When the oven temperature reaches the predetermined temperature, the digital programmer circuit stops supplying power relay 7 control signals resulting in convection heaters to turn off.

- (C) When the oven temperature drops below the predetermined temperature the digital programmer circuit generates power relay 7 control signals again at the timing predetermined.

NOTE 1: After convection process, if oven temperature is higher than predetermined temperature, fan motor rotates for 4 minutes 15 seconds at maximum time to cool the electric components and oven for respective weights by categories.

SPG

AUTO WEIGHT REHEAT (1-2)

CATEGORY	SELECTED WEIGHT	TOTAL REHEATING TIME
1. Auto Reheat 	500 G	5 Min. 00 Sec.

AUTO WEIGHT COOK (1-7)

CATEGORY	SELECTED WEIGHT	TOTAL COOKING TIME
1. Fresh Vegetables 	500 G	7 Min. 30 Sec.
2. Fish 	500 G	5 Min. 00 Sec.
3. Frozen Pizza 	300 G	14 Min. 30 Sec.
4. Frozen Bread 	100 G	8 Min. 30 Sec.
5. Roast Pork 	1000 G	37 Min. 40 Sec.
6. Roast Chicken 	1000 G	36 Min. 40 Sec.
7. Roast Beef 	800 G	16 Min. 00 Sec.

AUTO WEIGHT DEFROST (1-2)

CATEGORY	SELECTED WEIGHT	TOTAL DEFROSTING TIME
1. Meat/Fish 	500 G	16 Min. 15 Sec.
2. Bread/Cake 	300 G	5 Min. 15 Sec.

WPG

AUTO WEIGHT REHEAT (1)

CATEGORY	SELECTED WEIGHT	TOTAL REHEATING TIME
1. Auto Reheat 	300 G	3 Min. 00 Sec.

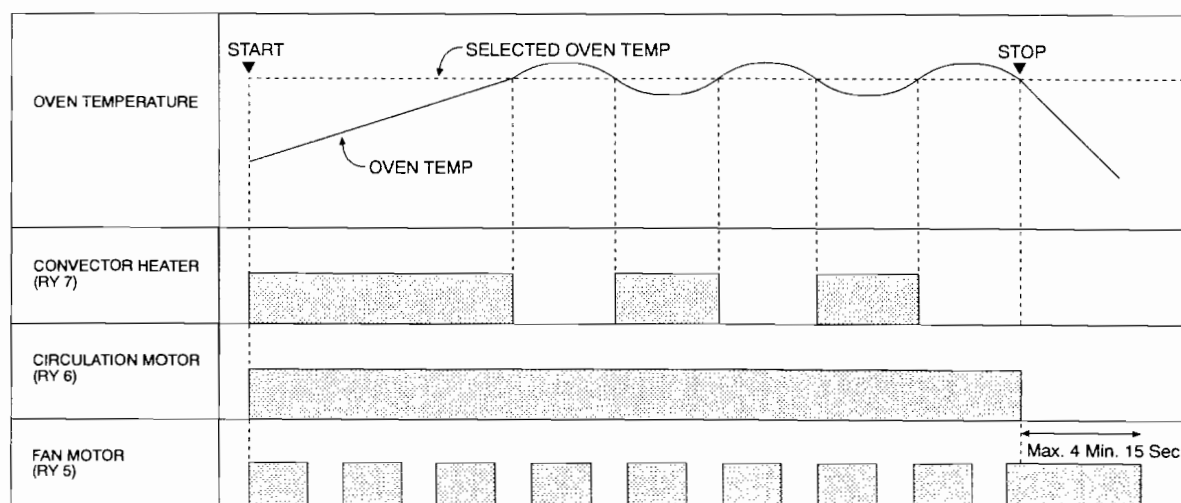
AUTO WEIGHT COOK (2-7)

CATEGORY	SELECTED WEIGHT	TOTAL COOKING TIME
2. Fresh Vegetables 	500 G	9 Min. 10 Sec.
3. Fish 	500 G	5 Min. 50 Sec.
4. Chicken 	1000 G	30 Min. 00 Sec.
5. Roast Pork 	1000 G	35 Min. 50 Sec.
6. Frozen Pizza 	300 G	14 Min. 00 Sec.
7. Gratin 	500 G	14 Min. 40 Sec.

AUTO WEIGHT DEFROST (1-2)

CATEGORY	SELECTED WEIGHT	TOTAL DEFROSTING TIME
1. Meat 	500 G	15 Min. 25 Sec.
2. Bread/Cake/Fish 	300 G	5 Min. 15 Sec.

Convection cooking



7. Combination cooking control

Combination cooking is accomplished by operating the microwave and heater mode alternately during one combination cooking cycle. There are 3 combination modes:

1. Grill combination (Grill + Microwave)
 2. Grill/Convection combination (Grill + Convection)
 3. Convection combination (Convection + Microwave)
- (A) The digital programmer circuit generates the power relay 1, 4, 5, 6 and 7 control signals at specific times as shown in the figure.
- (B) When the oven temperature reaches the predetermined temperature, the digital programmer circuit stops supplying power relay 7 control signals resulting in convection heaters to turn off. During this, digital programmer circuit continues supplying power relay 1 control signal so that microwave activity continues at predetermined duty ratio as shown in figure. The microwave activity continues to cycle until entire cooking programme is completed.
- (C) When the oven temperature drops below the selected temperature, the digital programmer circuit generates power relay 7 control signals again at the timing predetermined.

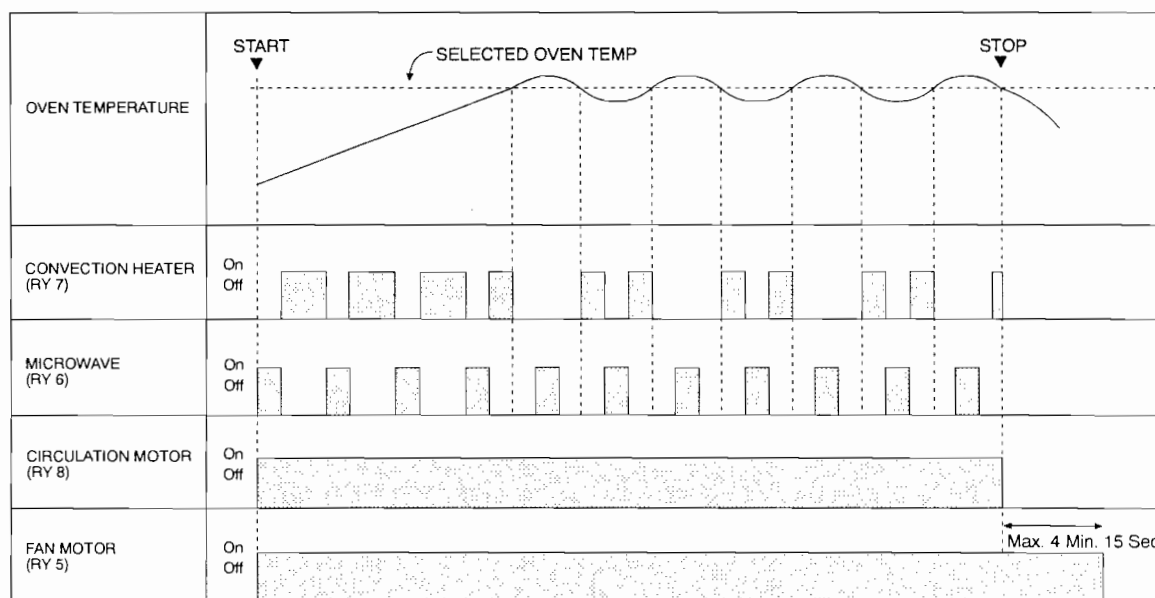
NOTE 1: After combination process, if oven temperature is higher than predetermined temperature, fan motor rotates for 4 minutes 15 seconds at a maximum time to cool electric components and oven.

COMBINATION (GRILL AND MICROWAVE)

	ON TIME (SEC)	OFF TIME (SEC)
GRILL (RY4)		
GRILL 1 (1200 W)	54	12
GRILL 2 (950 W)	38	28
GRILL 3 (700 W)	26	40
MICROWAVE (RY1)		
LOW (440 W)	33	33
SIMMER (250 W)	16	50
WARM (100 W)	8	58

NOTE: After 10 minutes the duty cycle will be changed to 38" on 28" off (Grill 3), if the door is opened during operation, the timer will not be reset and will not count another 10 minutes.

Combination (Convection + Microwave)



CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is high voltage, high current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

CAUTION

Servicemen should remove their watches whenever working close to or replacing the magnetron.

1. Check the earthing

Do not operate on a 2 wire extension cord. The microwave oven is designed to be used in a completely earthed condition. It is imperative, therefore, to make sure it is properly earthed before beginning repair work.

2. If the door lock, the door switch, the door seal or the door develops a malfunction, be sure not to operate the oven until complete repairs are made.

If the oven is operated with any of these parts in imperfect condition, hazardous microwave leakage might occur.

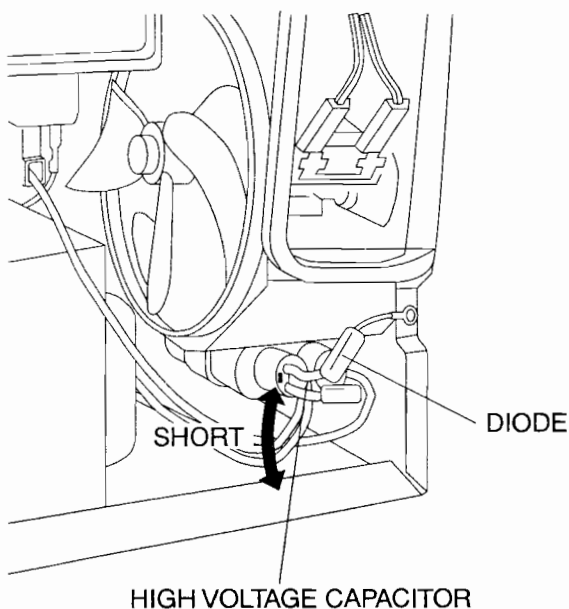
WARNING

Never operate the oven until the following are confirmed:

- (A) The door is tightly closed.
- (B) There is no broken hinge or door arm.
- (C) The door seal is not damaged.
- (D) The door is not bent or warped.
- (E) There is no other visible damage.

3. Warning about the electric charge in the high voltage capacitor.

For about 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitor. When replacing or checking parts, remove the power plug from the outlet, wait 30 seconds and short the terminal of the high voltage capacitor (terminal of lead wire from diode) to chassis ground with an insulated jumper lead wire or an insulated handle screwdriver to discharge.



Touch chassis side first then short to the high voltage capacitor terminal.

Important Note

1. High voltage above 250 volts are existing on following parts during operation.

- *Magnetron
- *High Voltage Transformer
- *High Voltage Diode
- *High Voltage Capacitor

Unusual attention should be paid during repair or troubleshooting of product.

2. If the microwave oven is operated with incorrect installed door hinge or magnetron, it can cause microwave leakage of over 5mW/cm². Hence it is absolutely necessary to check if magnetron and door hinge are correctly and safely installed after repairs or replacement.

WARNING

Never touch any circuit wiring with your hand nor with an insulated tool during operation.

4. When parts must be replaced, always remove the power plug from the outlet, and discharge the high voltage capacitor.

5. Confirm after repair

- (A) After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing. Microwave might leak if screws are not properly tightened.
- (B) Make sure that all electrical connections are tight before inserting the plug into the wall outlet.

6. Avoid inserting nails, wire, etc. through holes in unit during operation.

Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.

7.

CAUTION MICROWAVE RADIATION

Personnel should not be exposed to the microwave energy which may radiate from the magnetron or other microwave generating device if it is improperly used or connected. All input and output microwave connections waveguides, flanges, and gasket must be secure. Never operate the device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

8.

CAUTION

High voltage parts may become uncovered when outer cabinet is removed.

SÄKERHETSÅTGÄRDER ATT TAGA HÄNSYN TILL VID FELSÖKNING OCH REPARATION

Till skillnad från andra apparater har mikrovågsugnar högspänningstark strömsutrustning.

Även om ugnen är helt säker vid normalt bruk, skall största försiktighet vidtagas vid reparation.

VARNING

Vid reparation i närheten, eller vid byte av magnetron, skall armbandsur avtagas.

1. Kontroll av jordning.

Använd ej en 2-ledad anslutningssladd. Mikrovågsugnen är tillverkad så att den skall användas jordad. Tillse därför att ugnen är ordentligt jordad innan arbetet påbörjas.

2. Om dörrlåset, dörrromkopplaren eller dörrtillslutningen visar någon felaktighet, använd ej ugnen innan felet är avhjälp.

Om ugnen används när något av dessa fel har uppstått kan ev. Mikrovågsläckage uppstå.

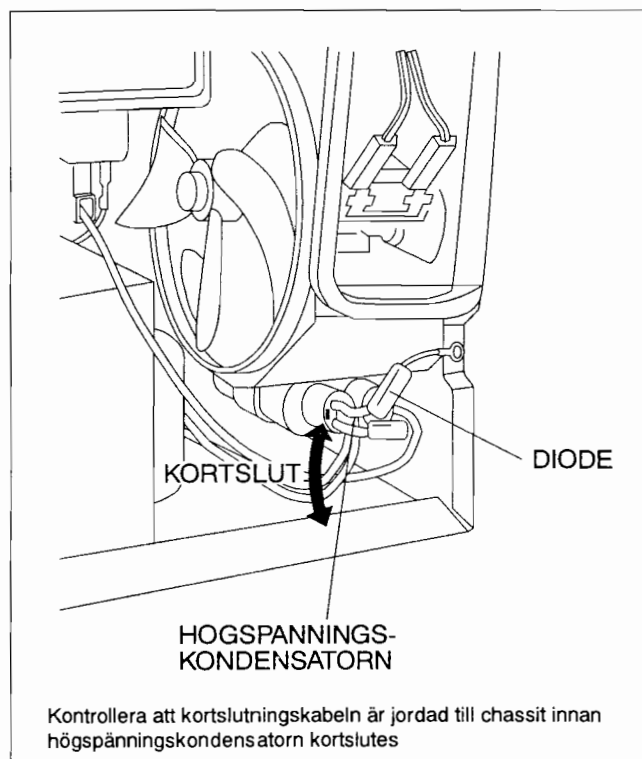
VARNING

Sätt aldrig på ugnen innan följande har kontrollerats:

- (A) Dörren är ordentligt stängd.
- (B) Dörrtätningens lista inte är skadad.
- (C) Dörren är skev, böjd eller otät.
- (D) Gångjärnen är hela.
- (E) Att annan synlig skada inte finns.

3. Varning för elektrisk ström i högspänningskondensatorn

CA: 30 sekunder efter det att ugnen stängts av, kvarstår en elektrisk laddning i högspänningskondensatorn. Vid utbyte eller kontroll av delar, stäng av ugnen, vänta i 30 sekunder och kortslut därefter kondensatorn (Anslutningen för ledning från dioden) till ytter höljets jord genom att använda en isolerad kortslutningskabel.



VIKTIGT

1. Under drift finns spänning överstigande 250V i apparaten på följande ställen:

- *Magnetronen
- *Högspänningstransformatoren
- *Högspänningsdioden
- *Högspänningskondensatorn

Stor försiktighet skall iakttas under felsökning och reparation.

2. Om ugnen används med felaktigt installerad dörr och/eller magnetron kan mikrovågsläckage överstigande 5mW/cm² uppträda. Följaktligen är det absolut nödvändigt att kontrollera att dörr och/eller magnetron är korrekt och säkert installerade efter utbyte eller reparation.

VARNING

Gör inga mätningar i högspänningsdelen eller av glödspänning för magnetronen.

4. Vid byte av delar, tag alltid ur nätkontakten från vägguttaget Högspänningskondensatorerna.

5. Kontroll efter reparation.

- (A) Efter reparation eller vid byte av delar tillse att skruvar, flänsar och tätningar ej fattas eller å lösa. Mikrovågor kan läcka ut om detta ej åtgärdats.
- (B) Alla elektriska kopplingar skall < ara väl förbundna innan nätkontakten anslutes.

6. Stoppa aldrig in någon form av metallföremål i håligheter eller springor under det att apparaten är påslagen.

Metallföremål kan fungera som antenn och förorsaka mikrovågs läckage.

7.

VARNING

för

MIKROVÅGSSTRÅLNING.

Mikrovågsenergi kan stråla från magnetronen eller från annan mikrovågsgenererande anordning om den används eller ansluts felaktigt. Alla anslutningar för mikrovåg, såsom flänsar och tätningar måste vara betryggande ur säkerhetssynpunkt. Starta aldrig anordningen utan mikrovågsabsorberande belastning. Mikrovågsstrålning från en öppen vågledare eller antenn har sådan strålningstäthet att uppenbar skaderisk föreligger.

8.

VARNING

Vid avlägsnande av apparatens ytterhölje friläggs högspänningsförande delar.

LAITEEN HUOLLOSSA JA KORJAUKSESSA HUOMIOONOTETTAVIA VAROTOIMENPITEITÄ

Toisin kuin monet muut kotitalouskoneet toimii mikroaaltouuni suurella käyttöjännitteellä ja-virralla.

Vaikkakin uuni on täysin turvallinen normaalikäytössä, on sen korjauksessa noudatettava ehdottomasti varotoimenpiteitä.

VAROITUS

Magnetronia vaihdettaessa tai sen läheisyydessä työskenneltäessä tulee rannekello irroittaa.

1. Jos uunin oven lukkoon, sen kytkimeen tai tiivisteisiin tai itse oveen tulee jokin vika, ei uunia saa käyttää ennenkuin vika on korjattu.

Jos uunia käytetään oven tai sen jonkin osan ollessa vioittunut, saattaa tapahtua vaarallista mikroaaltovuotoa.

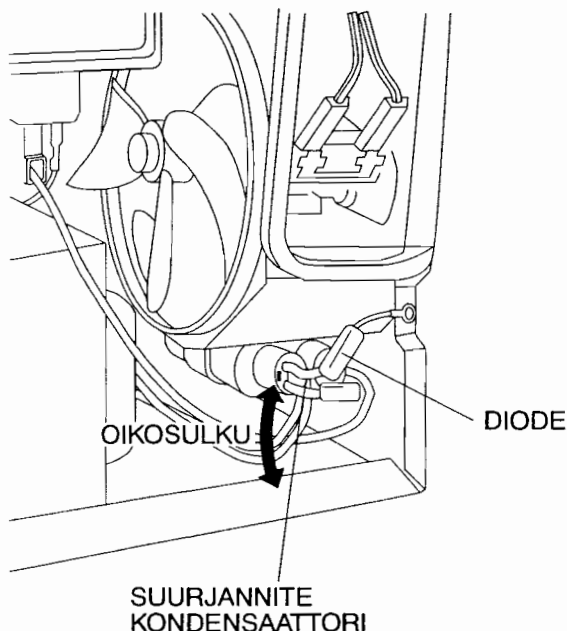
VAROITUS

Ennen uunin käynnistämistä on aina ensin tarkistettava että:

- (A) Uunin ovi on suljettu kunnolla.
- (B) Oven tiivistyslistat eivät ole vahingoittuneet.
- (C) Ovi ei ole vino, vääntynyt tai epätiivis.
- (D) Oven saranat ovat ehjät.
- (E) Ettei uuni ole mitenkään näkyvästi vaurioitunut

2. Huom! Sähkö varautuu korkeajännitekondensaattoriin.

Kun uuni on kytketty OFF-asentoon jää sähkövaraus korkeajännitekondensaattoriin noin 30:n sekunniksi. Kun asennat tai tarkistat uunin osia kytke uuni OFF-asentoon, odota 30 sekuntia ja oikosulje korkeajännitekondensaattorin kosketin (Diodin liitosjohtimen pääte) kojeiston runkoa vasten eristetyllä "hyppylangalla".



Varmistakaa että hyppylanka on maadoitettu laitteen rungon sivuun ennen suurjännite kondensaattorin päätteen oikosulkemista

Tarkea varoitus

1. Laitteen toimiessa seuraavissa osissa on yli 250 V suurjännite.

- *Magnetroni
- *Suurjännitemuuntaja
- *Suurjännitediodi
- *Suurjännitekondensaattori

Laitteen korjaamisessa täytyy siksi olla erityisen varovainen.

2. Uunin väärin asennettu luukku tai magnetroni voi aiheuttaa mikroaaltovuotoa, joka ylittää 5 mW/cm². Tämän vuoksi korjauksen ja osien vaihdon jälkeen on ehdottomasti tarkastettava magnetronin ja uuniluukun oikea asennus.

VAROITUS

Magnetronin hehkujännitettä tai sen suurjänniteosan jännitettä ei saa mitata.

3. Kun laitteeseen vaihdetaan osia on virtajohdin aina irroitettava seinästä ja korkeajännitekondensaattorien jännite purettava.

4. Tarkistukset korjaustöiden jälkeen.

- (A) Korjauksen tai osien vaihdon jälkeen on tarkistettava että kaikki ruuvit, laipat ja tiivisteet ovat paikallaan ja kiristettyinä. Mikroaallot saattavat vuotaa löysistä liitoksista.
- (B) Kaikki sähköiset liitännät on suoritettava ennen virran kytkemistä.

5. Uunin kotelon reikiin tai aukkoihin ei saa työntää mitään metalliesineitä uunin ollessa käytössä.

Metalliesineet voivat toimia antennina ja aiheuttaa mikroaaltovuotoa.

6.

MIKROAALTOSÄTEILYÄ

Käyttäjä ei saa joutua alttiiksi mikroaaltoenergialle, jota voi säteillä magnetronista tai muusta mikroaaltoja kehittävästä laitteesta, jos sitä käytetään väärin tai jos se kytketään väärin. Kaikkien mikroaaltoliitännöiden sekä syöttö-että ulostulopuolella, aaltoputkien laippojen ja tiivisteiden tulee olla varmistettuja. Mikroaaltouunia ei koskaan saa käyttää ilman kuormaa jossa mikroaaltoenergiaa kuluu. Avoimeen aaltoputkeen tai antenniin ei koskaan saa katsoa virran ollessa kytkettynä.

7.

VAROITUS

Irroitettaessa uunin kotelo paljastuu osia joissa on korkea jännite.

SIKKERHETSTILTAK SOM MÅ TAS HENSYN TIL VED FEILSØKING OG REPARASJON

I motsetning til annet kjøkkenutstyr har mikrobølgeovnen høyspenning, sterkstrømsutstyr. Selv om ovnen er helt sikker ved normal bruk, må man være spesielt forsiktig ved reparasjon.

ADVARSEL

Ved reparasjon i nærheten, eller ved bytte av magnetron skal armbåndsur tas av.

1. Kontroll av jording.

Bruk ikke 2-lederkabel, mikrobølgeovnen er laget slik at den skal jordes. Pass derfor på at ovnen er skikkelig jordnet før arbeidet påbegynnes.

2. Om det finnes feil på dørlas, dørbryter eller dørtetning må ikke ovnen brukes før feilen er rettet. I motsatt fall kan mikrobølgelekkasje oppstå.

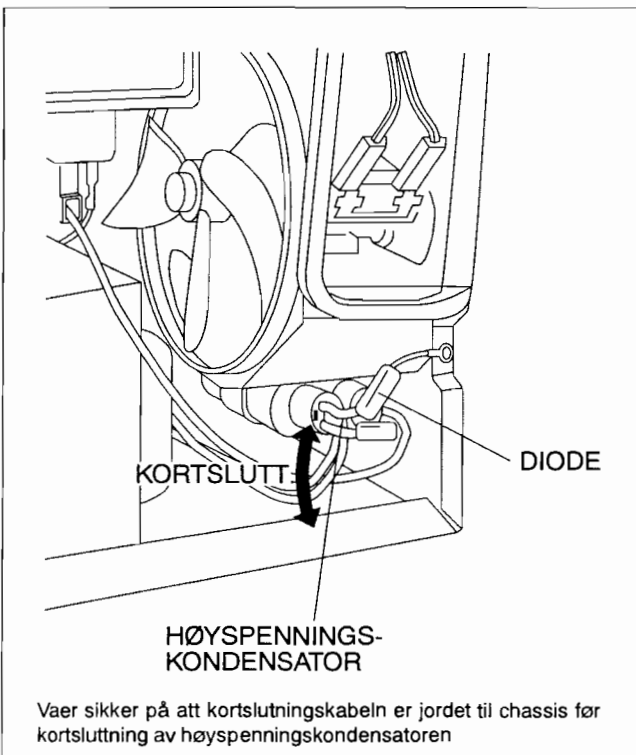
ADVARSEL

Bruk aldri ovnen før følgende er kontrollert:

- A. Døren er ordentlig stengt.
- B. Dørtetningslisten ikke er skadet.
- C. Døren er skjev, bøyd eller utett.
- D. Gangjernene er hele.
- E. At det ikke er annen synlig skade.

3. Advarsel vedrørende elektrisk ladning i høyspenning kondensatoren.

Ca. 30 sekunder etter at ovnen er slått av, vil det fortsatt være igjen en elektrisk ladning i høyspenning kondensatoren. Ved kontroll eller skifting av deler, slå av ovnen, vent 30 sekunder og kortslutt høyspenning kondensatoren (Sammenkoblingspunkt for ledning fra dioden) til chassis med en isolert ledning som vist på Fig. 15.



Advarsel

1. Høyspenning over 250 volt finnes på følgende deler under drift:

- *Magnetron
- *Høyspenningstransformator
- *Høyspenningslikeretter
- *Høyspenningskondensator

Vær spesielt oppmerksom under arbeid med disse delene.

2. Hvis mikrobølgeovnen blir brukt med feil montert dørhengsler eller magnetron, kan dette forårsake lekkasje av mikrobølgestraling på mer enn 5mW/cm². Derfor er det absolutt påkrevet å kontrollere at dørhengsler og magnetron er korrekt montert etter reparasjon eller utskifting.

ADVARSEL

Foreta aldri målinger i høyspenningsdelen eller glødespenningen for magnetronen.

4. Ved utskifting av deler, fjern alltid støpslet fra kontakten og kortslutt høyspenningskondensatorene.

5. Kontroller etter reparasjon:

- (A) At skruer, flenser og tetninger ikke mangler eller er løse. Mikrobølger kan ellers lekke ut.
- (B) At alle elektriske koblinger er i orden før kontakten settes i.

6. Putt aldri metallgjenstander inn i hull eller sprekker mens ovnen er tilkoblet.

Slike kan virke som antenne og forårsake mikrobølgelekkasje.

7.

ADVARSEL MOT MIKROBØLGESTRALING

Personer må aldri utsettes for straling av mikrobølgeenergi. Alle tilkoblinger for mikrobølger, som flenser og tetninger må være sikkerhetsmessig betryggende utført. Start aldri apparatet uten mikrobølgeabsorberende belastning. Mikrobølgestraling fra åpen bølgeleder eller antenne har så stor strålingstetthet at det er stor risiko for skadevirkninger.

8.

ADVARSEL

Når ytterdekslet fjernes blir høyspenningsførende deler tilgjengelige.

SIKKERHEDSFORSKRIFTER VED FEJLFINDING OG REPARATION

I modsætning til mange andre elektriske apparater arbejder mikrobølgeovne ved høje spændinger og store strømme. Selv om en mikrobølgeovn er fuldstændig sikker ved normal brug, skal reparation foretages med højeste forsigtighed.

ADVARSEL

Tag Deres armbåndsur af, hvis De skal arbejde i nærheden af eller udskifte magnetronen.

1. Kontrol af jordforbindelse

Tilslut ikke ovnen ved hjælp af et 2-leder kabel. Mikrobølgeovnen er konstrueret til at arbejde med jordforbindelse. Se derfor efter at ovnen er forsvarligt jordnet, før reparationen påbegyndes.

2. Hvis der er fejl ved låsen til ovndøren, omskifteren for døren eller tætningen af døren, må ovnen ikke anvendes, før fejlen er afhjulpet.

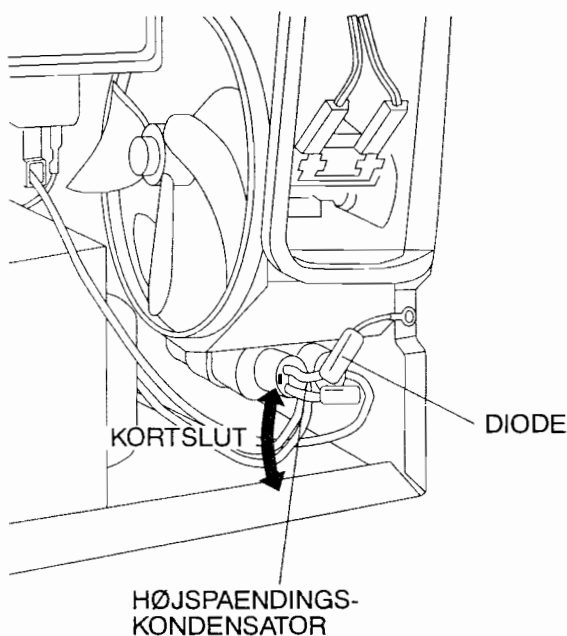
Hvis ovnen bruges, uden at sådanne fejl er afhjulpet, er der risiko for udstråling af mikrobølger.

ADVARSEL

Tænd aldrig for ovnen, før De har kontrolleret, at
(A) Døren er forsvarligt lukket,
(B) Tætningslisten omkring døren ikke er beskadiget,,
(C) Ovndøren ikke er skæv, bøjet eller utæt,
(D) Hængslerne er hele, og
(E) Der ikke findes andre synlige beskadigelser.

3. Advarsel om opladning af højspændingskondensatoren

Indtil omkring 30 sekunder efter at ovnen er afbrudt, vil højspændingskondensatoren stadig være opladet. Afbryd ovnen, når De skal udskifte eller kontrollere komponenter, vent 30 sekunder og kortslut højspændingskondensatorens ene tilslutning (Tilslutning for ledning fra dioden) til chassiset med et isoleret stykke ledning.



Kortslutningstråden skal være stelforbundet før højspændingskondensatoren kortsluttes

VIGTIGT

- 1) Følgende komponenter bærer højspænding (over 250 volt) under drift.

- *Magnetron
- *Højspændingstransformator
- *Højspændingsensretter
- *Højspændingskondensator

Extra opmærksomhed bør udvises ved reparation/fejlfinding.

- 2) Såfremt ovnen betjenes med forkert monteret dørhængsel eller magnetron, vil der være risiko for mikrobølgelækage over 5mW/cm². Det er derfor bydende nødvendigt at kontrollere disse komponenter efter endt reparation/udskiftning.

ADVARSEL

Undgå at berøre kredsløbene, hvarken med hånden eller med isoleret værktøj, mens ovnen er i gang.

4. Hvis det er nødvendigt at udskifte komponenter, skal De altid fjerne netstikket fra stikkontakten og aflade højspændingskondensatorerne.

5. Kontrollér efter reparation

- (A) Efter reparation eller udskiftning af komponenter må De se efter, at alle skruer og tætningslister er på plads og fastspændt. Der kan opstå lækage af mikrobølger, hvis skruerne ikke er forsvarligt strammet.
- (B) Alle elektriske forbindelser skal være i orden, før De sætter netstikket i stikkontakten.

6. Sæt under ingen omstændigheder metalgenstande i åbninger på apparatet, mens det er i gang.

Metalgenstande kan virke som antenner og forårsage lækage af mikrobølger.

7.

FORSIGTIG MIKROBØLGEUDSTRÅLING

Personer må ikke udsættes for mikrobølgeenergi, som kan udstråles fra magnetronen eller anden mikrobølgegenerator, hvis den er forkert anvendt eller forbundet. Alle mikrobølgeforbindelser, bølgeledere, flanger og pakninger skal være sikre. Tilslut aldrig apparatet uden en belastning, som kan absorbere mikrobølgeenergi. Se aldrig ind i en åben bølgeleder eller antenne, mens apparatet er i gang. Mikrobølgestrålingen fra en åben bølgeleder eller antenne har så stor intensitet, at der er overhængende risiko for skader.

8.

ADVARSEL

Når apparatets kabinet aftages, bliver der adgang til dele med højspænding.

DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE

1. Magnetron

- (A) Discharge the high voltage capacitor.
- (B) Remove 1 screw holding thermal cutout mount plate.
- (C) Remove 1 screw holding air guide A.
- (D) Disconnect 2 high voltage lead wires from magnetron filament terminals.
- (E) Remove 4 screws holding the magnetron.

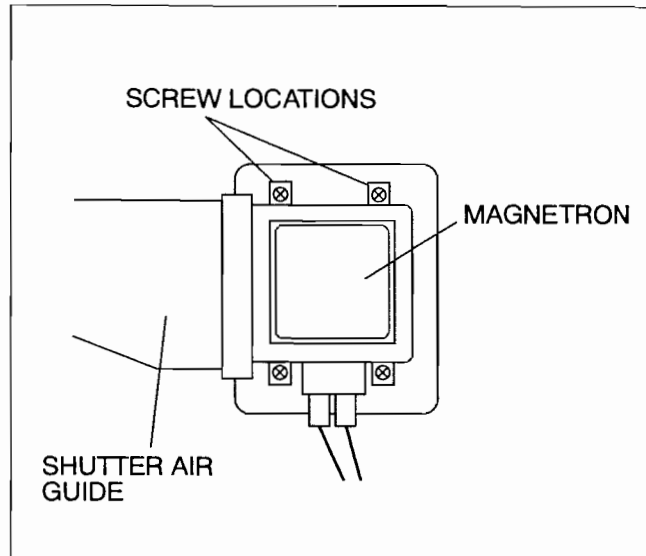
NOTE: After replacement of the magnetron, tighten mounting screws properly making sure there is no gap between the waveguide and the magnetron to prevent microwave leakage.

CAUTION

When replacing the magnetron, be sure the antenna gasket is in place.

CAUTION

When connecting 2 filament lead wires to the magnetron terminlas, be sure to connect the lead wires in the correct position. The lead wire of high voltage transformer should be connected to "F Terminal" and the lead wire should be connected to "FA Terminal".



2. Digital programmer circuit (DPC) and membrane key board.

NOTE: Be sure to ground any static electric charge built up on your body, before handling the DPC.

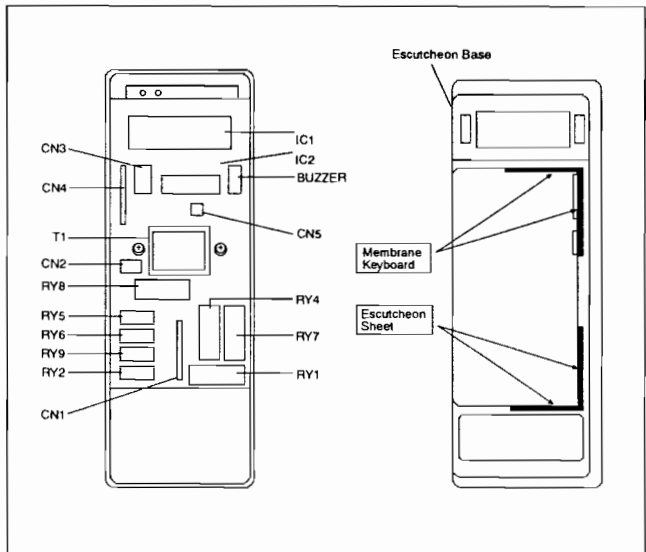
- (A) Disconnect all connectors from DPC.
- (B) Remove 2 screw holding escutcheon base and slide the escutcheon base upward slightly.
- (C) Release CN4 connector's lock of DPC by pushing both levers to inside and pull them upward, and remove flat cable of membrane key board.
- (D) Remove 2 screws holding DPC.

To replace membrane keyboard

- (E) Remove escutcheon bracket from escutcheon base by freeing 2 catch hooks on the escutcheon base.
- (F) Peel off the tub of membrane key board from escutcheon base.
- (G) Peel off the display filter from escutcheon base.
- (H) Push the upper part of key board (display window portion) from back of escutcheon base and peel off membrane key board completely from escutcheon base.

NOTE 1: The membrane key board is attached to the escutcheon base with double faced adhesive tape. Therefore, applying hot air such as using of hair dryer is recommended for smoother removal.

- 2: When installing new membrane key board, make sure that the surface of escutcheon base is cleaned sufficiently so that any problems (shorted contacts or uneven surface) can be avoided.
- 3: Alignment position of membrane key board and escutcheon sheet are as follows (See figure):
Membrane key board: Right and lower edges
Escutcheon sheet: Right and lower edges



3. Low voltage transformer and/or power relays

NOTE: Be sure to ground any static electric charge built up on your body before handling the DPC.

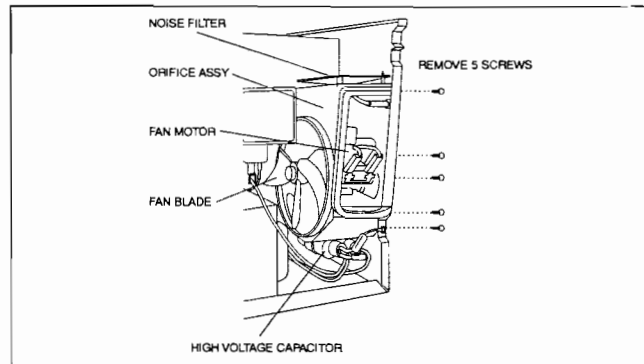
- (A) Using solder wick or a desoldering tool and 30W soldering iron, carefully remove all solder from the terminal pins of the low voltage transformer and/or power relays.

NOTE: Do not use a soldering iron or desoldering tool of more than 30 watts on DPC contacts.

- (B) With all the terminal pins cleaned and separated from DPC contacts, remove the defective transformer/power relays and install new transformer/power relays making sure all terminal pins are inserted completely. Resolder all terminal contacts carefully.

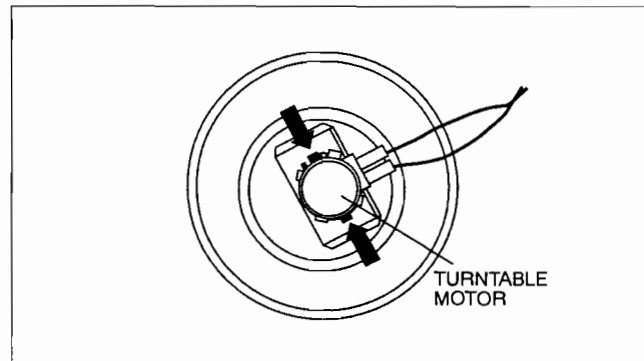
4. Fan motor

- (A) Disconnect 2 lead wires from fan motor terminals.
- (B) Remove the noise filter by freeing catch hooks.
- (C) Disconnect 4 high voltage lead wires from the high voltage capacitor terminals.
- (D) Remove 5 screws holding the fan motor and orifice assy and detach the orifice assy with fan motor from oven assy.
- (E) Remove fan blade from the fan motor shaft by pulling it straight out.
- (F) Separate the fan motor from the orifice assy by freeing 2 catch hooks on the orifice assy.



5. Turntable motor

- (A) Remove the motor cover by breaking off at the 4 spots indicated by arrows with a cutter or the like (See figure).
- NOTE: After breaking off the motor cover, make sure that cut-off portions are properly trimmed off or bend to inside so that no sharp edge will expose to inside.
- (B) Disconnect 2 lead wires connected to the turntable motor.
 - (C) Remove the turntable motor by removing 2 screws.
- NOTE: To reinstall the motor cover use 4 x 6 screws.



6. Door assembly

- (A) Separate Door C from Door E by inserting flat blade screwdriver between them. (See fig. 1)
- NOTE: Door C is attached to Door E by hooks. These hooks may be damaged or broken when separating these. When you replace door E, please use door C enclosed with door E. When you need to replace door key or door key spring, please arrange to replace door C also for safety sake.
- (B) Remove door A by removing 3 screws to door E. (See fig. 2)
 - (C) Then remove door B. (See fig. 3)
 - (D) Remove door screen B from door A by releasing the catch hooks on door A.
 - (E) Remove door key or door key spring.
- After replacement of the defective component parts of the door, reassemble it and follow the instructions below for proper installation and adjustment so as to prevent an excessive microwave leakage.
- (1) When mounting the door to the oven, be sure to adjust the door parallel to the bottom line of the oven face plate by moving the upper hinge and lower hinge in the direction necessary for proper alignment.
 - (2) Adjust so that the door has no play between the inner door surface and oven front surface. If the door assembly is not mounted properly, microwave may leak from the clearance between the door and oven.
 - (3) Perform the microwave leakage test.

Fig. 1

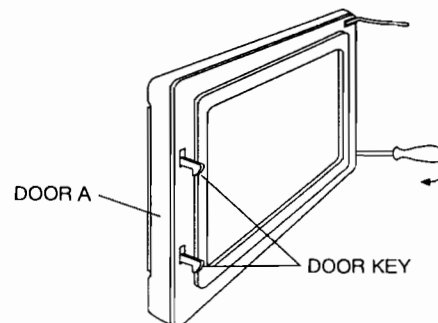


Fig. 2

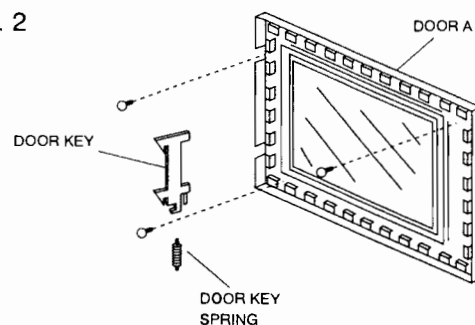
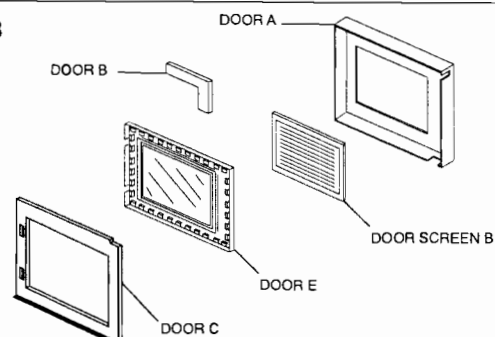
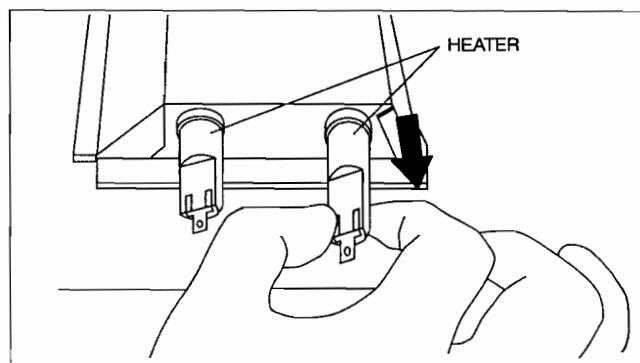
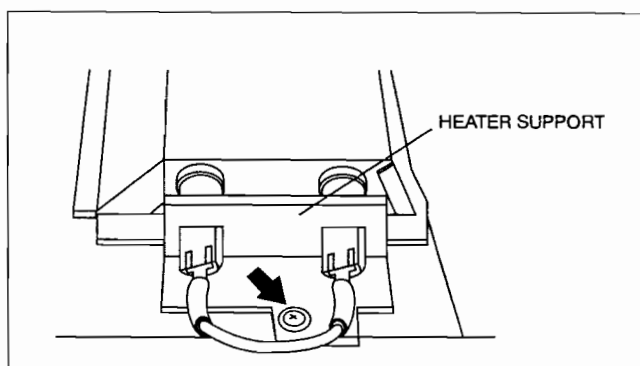


Fig. 3



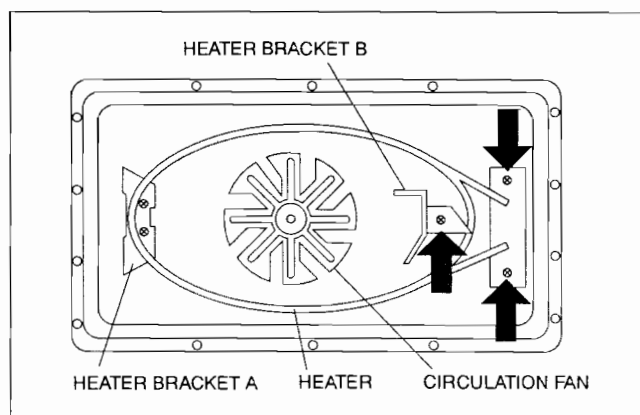
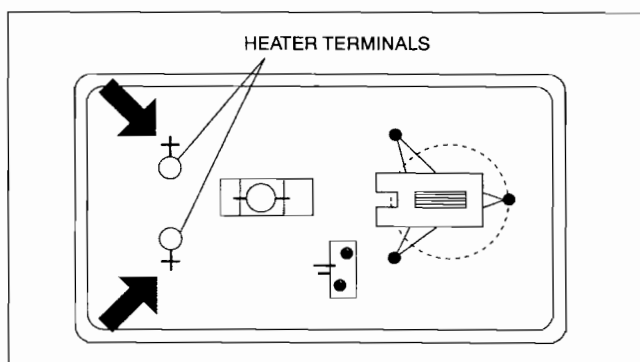
7. Quartz heater

- (A) Disconnect lead wires from heater terminals.
- (B) Remove 1 screw holding heater support.
- (C) Remove the heater by pulling it out.



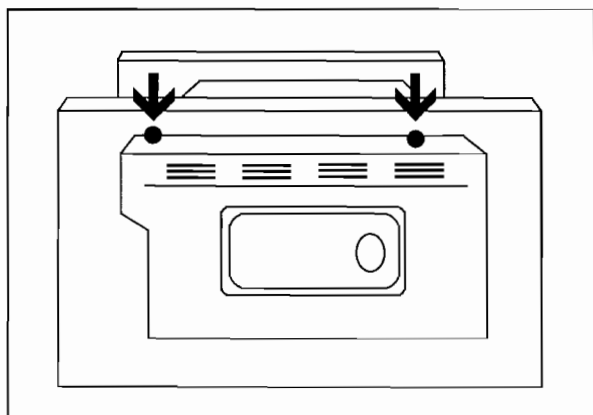
8. Convection Heater

- (A) Unscrew back heater unit from oven back plate.
- (B) Disconnect lead wires from heater terminals.
- (C) Remove two screws from heater and one screw from heater bracket B. The heater can now be removed without having to remove heater bracket A



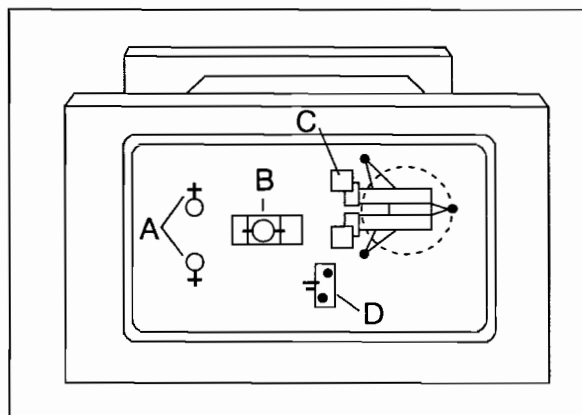
REMOVAL OF CONVECTION HEATER

①



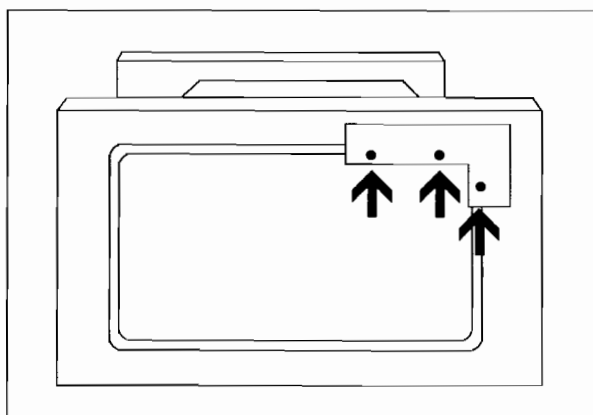
1. Remove the fixing screws from the back plate cover.

②



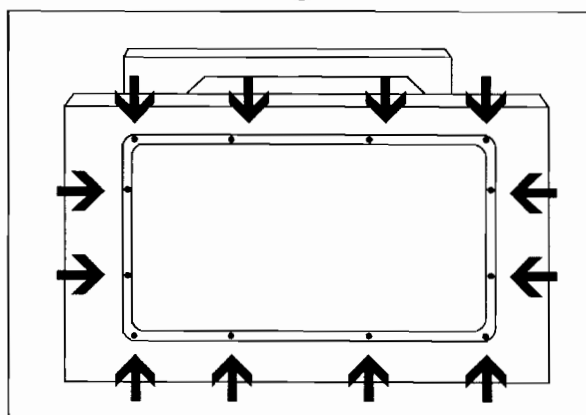
2. Disconnect the (A) heater terminals (B) thermal cutout (C) circulation fan motor and unscrew (D) the thermistor.

③



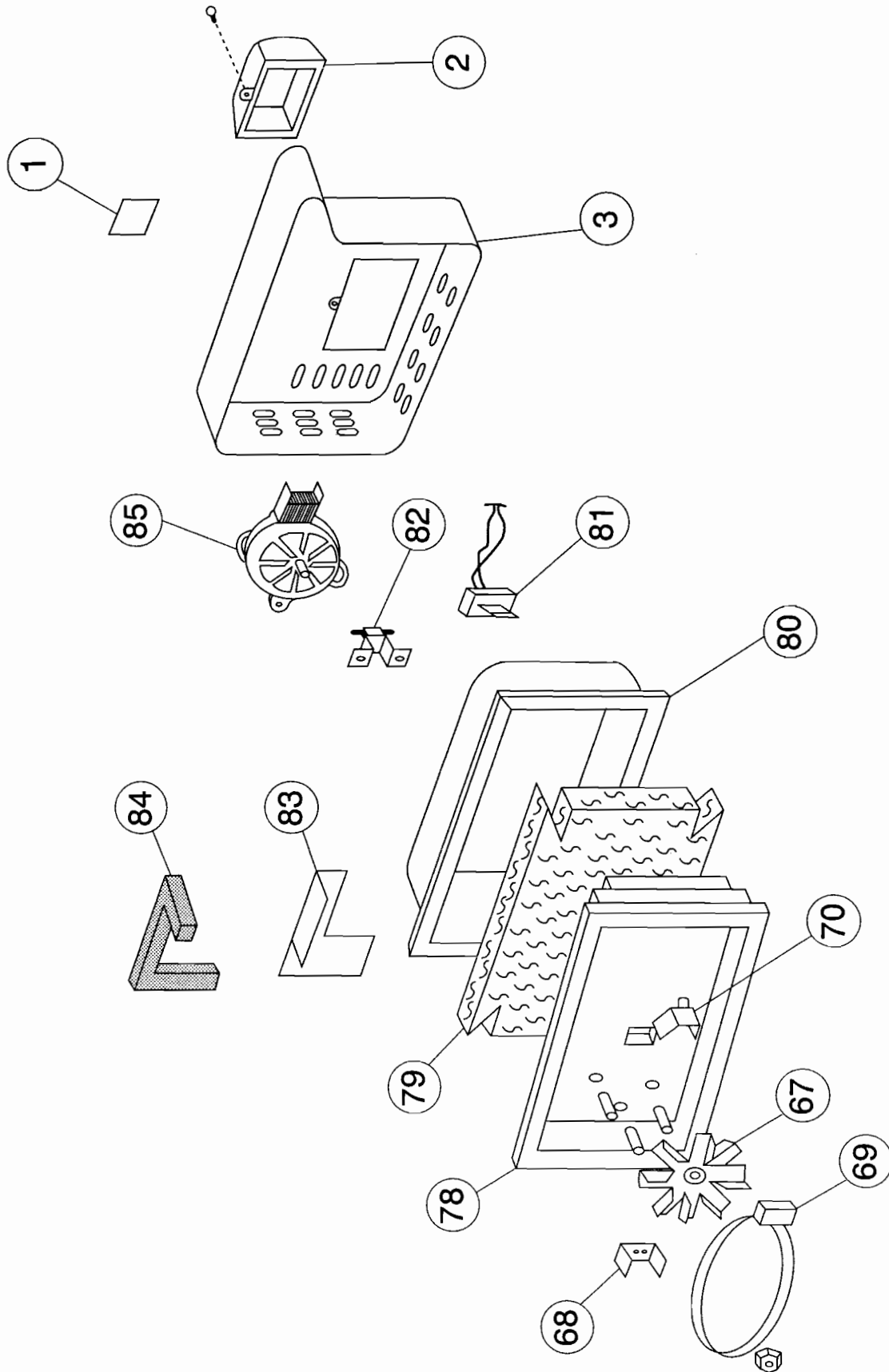
3. Remove fixing screws from the air guide C assembly.

④



4. Remove fixing screws from the convection back heater.

CONVECTION BACK HEATER



COMPONENT TEST PROCEDURE

CAUTION

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components, or wiring, always unplug the oven from its power source and discharge the high voltage capacitor.

1. High voltage transformer

- (A) Remove connections from the transformer terminals and check continuity.
- (B) Normal (cold) resistance readings should be as follows:
Secondary winding Approx. 80Ω ~ 120Ω
Filament winding Approx. 0Ω
Primary winding Approx. 0Ω ~ 3Ω

2. High voltage capacitor

- (A) Check continuity of capacitor with meter on highest OHM scale.
- (B) A normal capacitor will show continuity for a short time, and then indicate 9MΩ once the capacitor is charged.
- (C) A shorted capacitor will show continuous continuity.
- (D) An open capacitor will show constant 9MΩ.
- (E) Resistance between each terminal and chassis should be infinite.

3. Magnetron

Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.

- (A) Isolate magnetron from the circuit by disconnecting the leads.
- (B) A continuity check across magnetron filament terminals should indicate one ohm or less.
- (C) A continuity check between each filament terminal and magnetron case should read open.

4. Diode

- (A) Isolate the diode from the circuit by disconnecting the leads.
- (B) With the ohmmeter set on the highest resistance scale, measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions. A normal diode's resistance will be infinite in one direction and several hundred KΩ in the other direction.

5. Membrane keyboard (Membrane switch assembly)

Check continuity between switch terminals, by tapping an appropriate pad on the keyboard. The contacts assignment of the respective pads on the keyboard is as shown in digital programmer circuit.

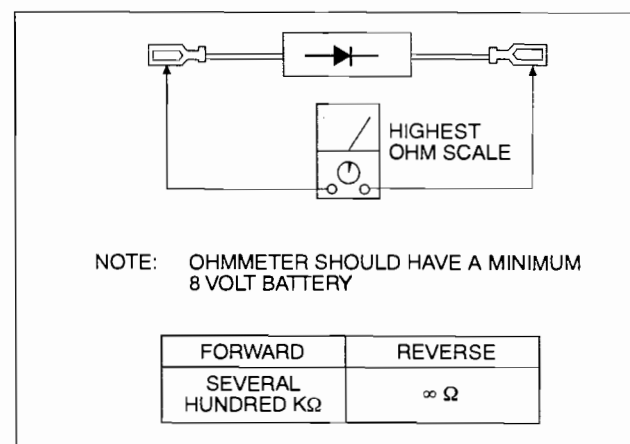
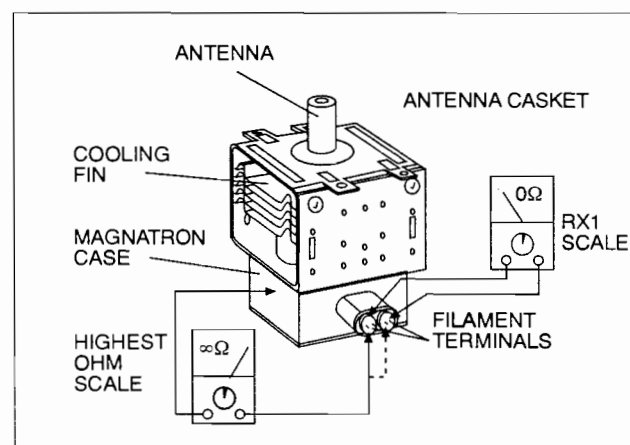
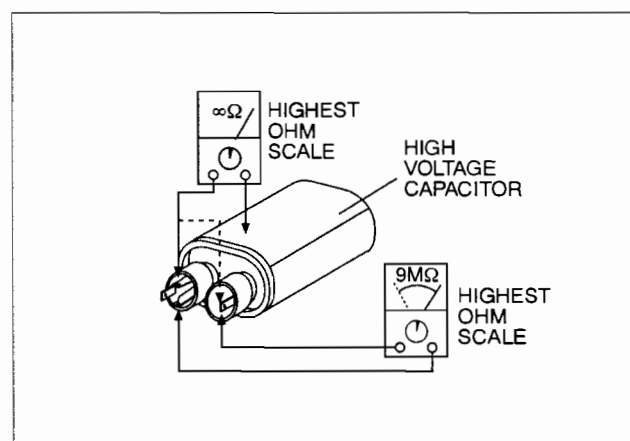
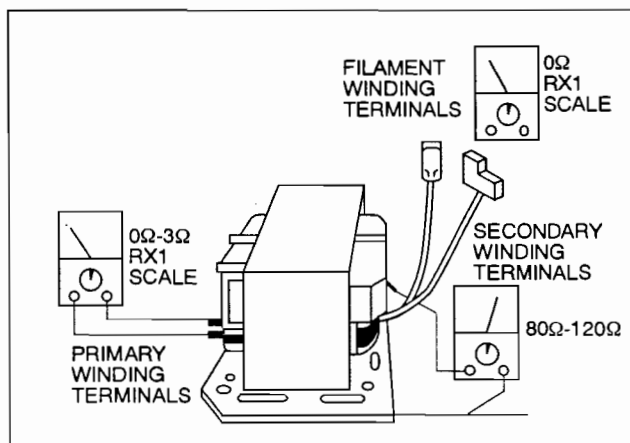
6. Oven temp sensor thermistor

This sensor monitors the heat produced by the heater circuit and maintains the oven temperature the user has selected. Normal room temperature, especially in the kitchen can vary anywhere from 10°C to 32°C. The reading across the oven sensor thermistor should be within 300K ohm to 1500K ohm when reading in an area within the 10°C to 32°C room temperature range.

If the resistance reading is out of the range stated here, the sensor is defective and must be replaced.

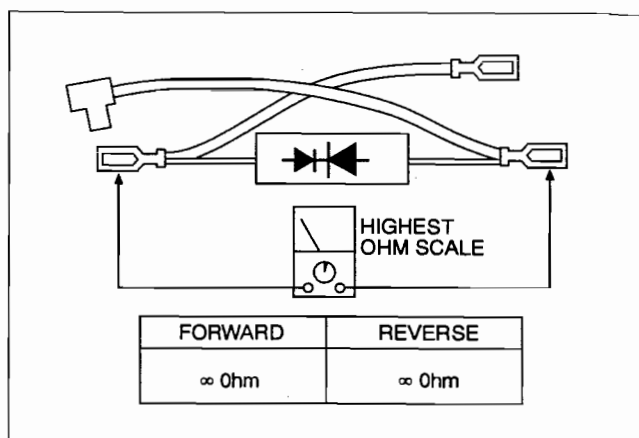
NOTE 1: When measuring resistance disconnect the 4-pin connector (CN4) from the DPC otherwise a false reading may be indicated.

NOTE 2: If checking an oven sensor thermistor just after the microwave oven has been operating, the sensor of course won't be room temperature. In this case the sensor must be removed and allowed to cool down to the 10°C to 32°C range.



7. Protector diode

- (A) Isolate the protector diode assembly from the circuit by disconnecting its leads.
- (B) With the ohmmeter set on the highest resistance scale, measure the resistance across the protector diode terminals. Reverse the meter leads and again observe the resistance reading. A normal protector diode's resistance will be infinite in both directions. It is faulty if it shows continuity in one or both directions.



MEASUREMENTS AND ADJUSTMENTS

1. Adjustment of Primary latch switch, Secondary latch switch and short switch

- (A) When mounting Primary latch switch, Secondary latch switch and short switch to door hook assembly, mount the Primary latch switch, the Secondary latch switch and the short switch to the door hook assembly as shown in Figure.

NOTE: No specific adjustment during installation of Primary latch switch, Secondary latch switch and short switch to the door hook is necessary.

- (B) When mounting the door hook assembly to the oven assembly, adjust the door hook assembly by moving it in the direction of arrow in Figure so that the oven door will not have any play in it. Check for play in the door by pulling the door assembly. Make sure that the latch keys move smoothly after adjustment is completed. Completely tighten the screws holding the door hook assembly to the oven assembly.

2. Measurement of microwave output

The output power of the magnetron can be determined by performing IEC standard test procedures. However, it is possible to test the magnetron by following procedure outlined below.

Necessary equipment:

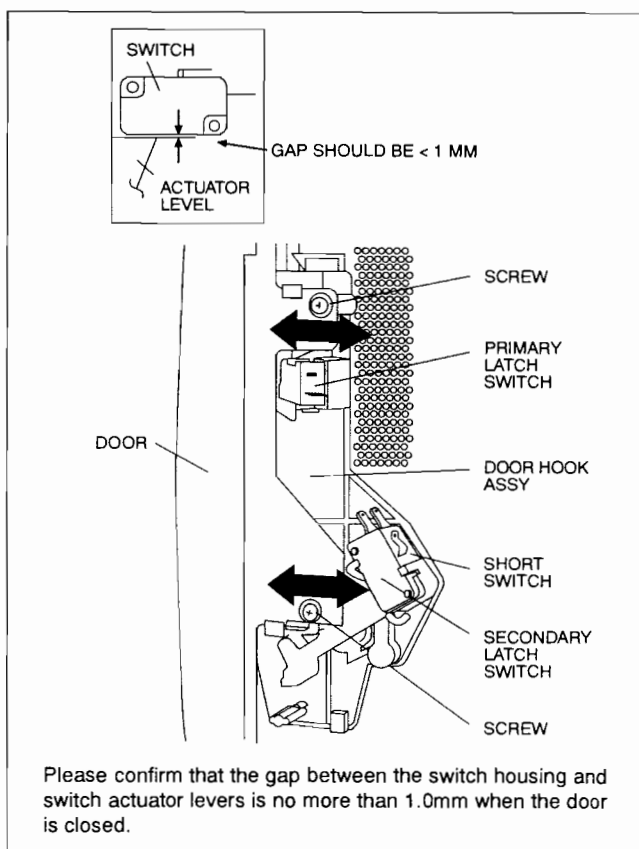
- *1 litre beaker
- *Glass thermometer
- *Wrist watch or stopwatch

NOTE: Check the line voltage under load to ensure it meets specifications. Low voltage condition will cause a reduction in magnetron output. Temperature readings and heating time should be as accurate as possible.

Output power performance test procedure

- (A) Fill the beaker with exactly one litre of tap water. Stir the water using the thermometer and note the temperature. (Record as T1).
- (B) Place the beaker in the centre of cook plate. Set the oven for High power and heat for exactly one minute.
- (C) After completion of the heating cycle, stir the water again with the thermometer and note the temperature. (Record as T2).

The normal temperature rise (T1-T2), for these models should be more than 7.0°C using the High power selection with the oven operating at the specified line voltage.



TROUBLESHOOTING GUIDE

CAUTION

1. Check the unit is grounded before commencing any troubleshooting.
2. Do not take measurements in the high voltage circuit.
3. Discharge the high voltage capacitor.
4. When checking the continuity of the switches or high voltage transformer, disconnect one lead from these parts and then check continuity with the AC plug removed. To do otherwise would result in a false reading or damage to your meter.
5. Do not touch any parts of the circuitry on the DPC, since static electric discharge may damage this control. Always connect yourself to ground to discharge any static charge in your body.
6. 240V AC is present at the shaded area  of the digital programmer circuit board (Terminals of power relays and primary circuit of low voltage transformer). Beware of electrical shock.

First of all operate the microwave oven following the correct operating procedures described in order to find the exact cause of any trouble.

Oven does not start

	SYMPTOM	CAUSE	CURE
1.	Oven is dead No display and no operation at all All fuses are OK	1. No mains supply	Consult electrician
		2. Open or loose lead wire harness	
		3. Loose wiring of relay 8	
		4. Open thermal cutouts (oven, magnetron)	Check fan motor when thermal cutout is defective
		5. Defective DPC	Refer to DPC troubleshooting
2.	Oven does not accept key input (Program)	1. Key input is not in sequence	
		2. Shorted or open membrane key board	Refer to operating procedure
		3. Open or loose connection of membrane keypad to DPC (Flat cable)	
3.	Oven lamp and turntable motor turn on when oven is plugged in with door closed	1. Misalignment or loose wiring of secondary latch switch	Adjust door and latch switches
		2. Open secondary latch switch	
4.	Timer starts count down but no microwave oscillation	1. Misalignment of latch switches	
		2. Open primary latch switch	
		3. Open or loose wiring of power relay 1	
		4. Defective DPC	Refer to DPC troubleshooting
		5. Open or loose connection of high voltage circuit especially magnetron filament circuit NOTE: A large contact resistance will cause a lower magnetron filament voltage causing lower magnetron output or intermittent oscillation	
		6. Defective high voltage component H.V. Transformer H.V. Capacitor H.V. Diode Magnetron	Check high voltage component according to test procedure and replace if defective

Fuse is blown

	SYMPTOM	CAUSE	CURE
1.	10A fuse is blown	1. Shorted lead wire harness	
		2. Defective short switch	Check adjustment of latch switches and door
		3. Defective primary latch switch	
		4. Shorted H.V. Capacitor	
		5. Shorted H.V. Diode	Replace H.V. Diode and protector diode (*NOTE)
		6. Defective Magnetron	Replace magnetron and protector diode (*NOTE)
		7. Shorted H.V. Transformer	Replace H.V. Transformer and protector diode (*NOTE)
		8. Shorted protector diode	
		9. Shorted Grill/Convection Heater	
2.	1.25A fuse is blown	1. Defective primary latch switch or short switch	Replace primary, secondary and short switch as required
		*NOTE: Be sure to replace protector diode together with those H.V. Components. In this case, only D2 of protector diode may be shorted due to faulty H.V. Component. Therefore, if protector diode is not replaced together, high voltage transformer will be damaged (over heated)	

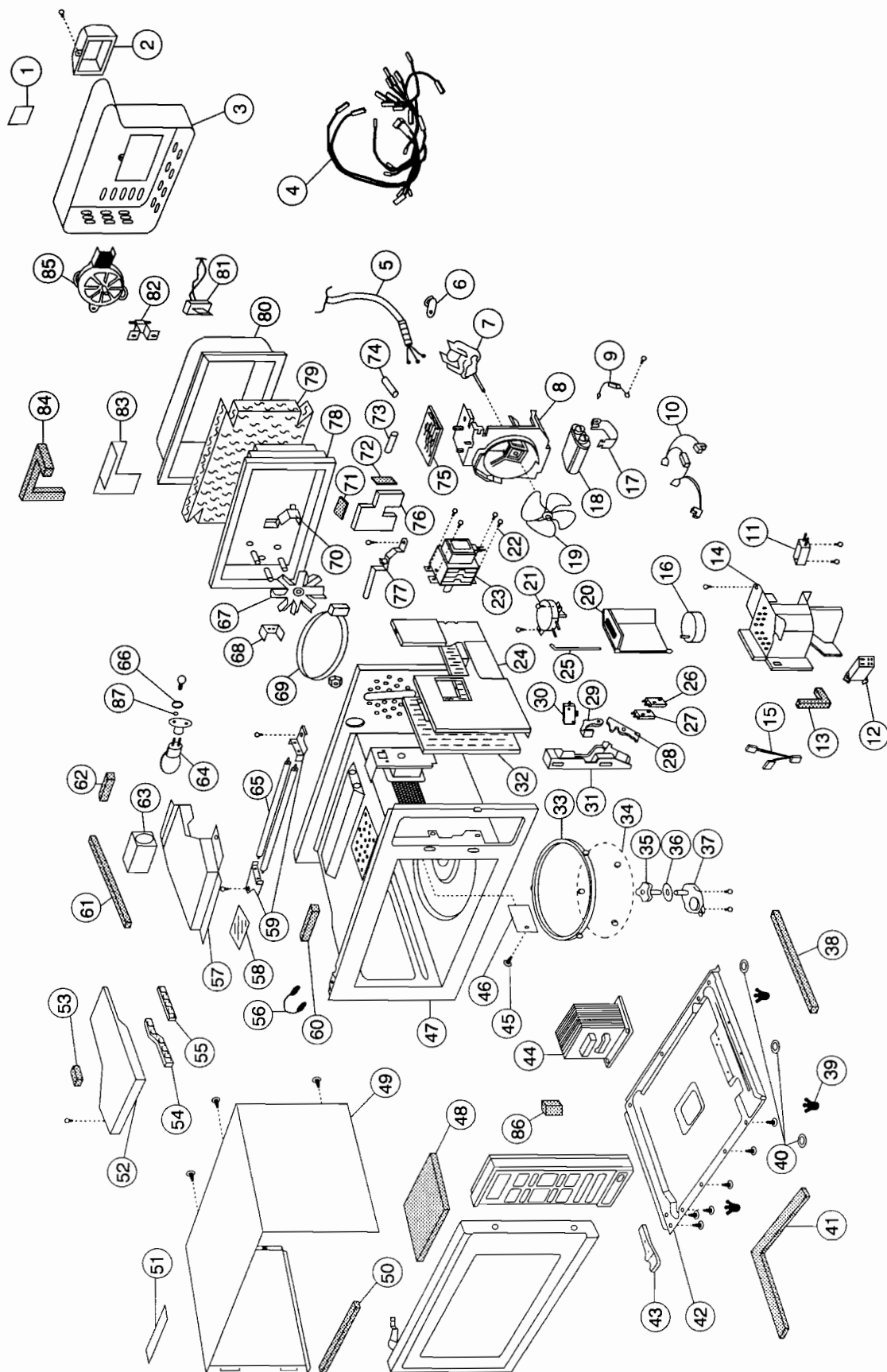
Other problems

	SYMPTOM	CAUSE	CURE
1.	Microwave output is low. Oven takes a long time to cook food	1. Decrease in power source voltage	Consult electrician
		2. Open or loose wiring of magnetron	
		3. Ageing of magnetron	
2.	Loud buzzing noise can be heard	1. Loose fan and fan motor 2. Loose screws on H.V. Transformer 3. Defective H.V. Transformer	
3.	Oven stops operation during cooking	1. Misalignment of latch switches	Adjust door and latch switches
		2. Open or loose wiring of primary and secondary latch switch	
		3. Operation of thermal cutout (Magnetron/Oven)	
4.	Lamp does not work when door is opened	1. Lamp Defective	
		2. Shorted secondary latch switch	
		3. Defective DPC	Refer to DPC troubleshooting
5.	Timer continues to count down when the door is opened during operation in all programs	1. Shorted secondary latch switch	
		2. Defective DPC	Refer to DPC troubleshooting
6.	Oven returns to plugged in mode 18 seconds after start pad is pressed	1. Open or loose wiring of shutter motor and shutter switch 2. Open shutter switch 3. Defective shutter motor 4. Defective DPC	
7.	Oven returns to plugged in mode 6 seconds after start pad is pressed (except in microwave cooking mode)	1. Shorted shutter switch 2. Defective DPC	
8.	Oven returns to plugged in mode 1 minute after start pad is pressed	1. Open or loose wiring of oven temp sensor 2. Defective oven temp sensor 2. Defective DPC	

DIGITAL PROGRAMMER TROUBLE SHOOTING GUIDE

SYMPTOM	STEP	CHECK	RESULT	CAUSE
No Display when oven is first plugged in	1	Fuse pattern of DPC	Normal	→ Step 2
			Open (See Note)	Shorted circuit of ZD1, L.V.T., Oven Lamp. Replace DPC
	2	Low voltage transformer (L.V.T) secondary voltage	Abnormal 0V	L.V.T.
			Normal	→ Step 3
	3	IC-1pin 1 voltage (emitter of Q1)	Abnormal 0V	ZD1, Q1
			Normal 5V	→ Step 4
4	IC-1pin 27 voltage (pin 14 of IC-2)	Abnormal 0V	IC-2	
		Normal 5V	→ IC-1, CX1, DISPLAY	
NOTE Procedure for repairing fuse pattern is as follows: 1. <u>When the fuse pattern (PF2) opens.</u> (1) Remove jumper wire (PF1). (2) Insert jumper wire (PF1) to (PF2) position and solder it. If both PF1 and PF2 fuse patterns are open please replace the DPC. 2. <u>When the fuse pattern (PF4) opens.</u> (1) Remove jumper wire (PF3). (2) Insert jumper wire (PF3) to (PF4) position and solder it. If both PF3 and PF4 fuse patterns are open please replace the DPC. NOTE: At the time of these repairs, make visual inspection of the varistor for burning damage and test the transformer for layer short-circuits.(check primary coil resistance) normal (). If any abnormal condition is detected, please replace the defective parts.				
No key input	1	Membrane switch continuity	Abnormal	Membrane switch
			Normal	IC-1
No buzzer operation	1	IC-1 pin 23 voltage	Abnormal	IC-1
			Normal	Q3, BZ
Power relay A (RY-2) does not turn on even though program has been set and the start pad is tapped	1	IC-1pin 8 voltage during operation	Abnormal	IC-1
			Normal 5V	→ Step 2
	2	Short circuit between pin 1 and pin 12 of IC-2	Abnormal	IC-2
			Normal	RY-2
Timer starts to count down but continuous operation on high power	1	IC-1pin 5, pin 64 and pin 13 voltages with continuous operation on high power	Abnormal	IC-1
			Normal 5-5V, 64-5V, 13-5V	→ Step 2
	2	Q6 transistor	Abnormal	Q6
			Normal	→ Step 3
	3	Q9 transistor	Abnormal	Q9
			Normal	→ Step 4
	4	Q4 transistor	Abnormal	Q4
			Normal	IC-2, RY-1, RY-8
Dark or unclear display	1	Replace display and check operation	Abnormal	DISPLAY
			Normal	IC-1
Unlit segments on display	1	Replace IC-1 and check operation	Abnormal	IC-1
			Normal	DISPLAY
Power relay 4, 5, 6, 7, 9 does not turn on	1	IC-1 Pin 28, 13, 9, 29, 6	Abnormal	IC-1
			Normal (5V)	→ Step 2
	2	Transistor Q7, Q8, Q9, Q10, Q11	Abnormal	Q7, Q8, Q9, Q10, Q11
			Normal	Q4 / RY4, 5, 6, 7, 9
Oven lamp does not operate with the door open Counter continues to count down when the door is opened during operation in all programs.	1	IC-1 Pin 8 Voltage	Abnormal	IC-1
			Normal (5V)	→ Step 2
	2	IC-2 Pin 2 voltage with door open	Abnormal	IC-2
			Normal (5V)	RY-2

EXPLODED VIEW AND PARTS



(PARTS LIST)

- 1: Part numbers are indicated on most mechanical parts. Please use these part numbers for part orders.
Do not use description of part.
- 2: Important safety notice:
Components identified by ! mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
- 3: Components identified by (*) are MELUK supplied.

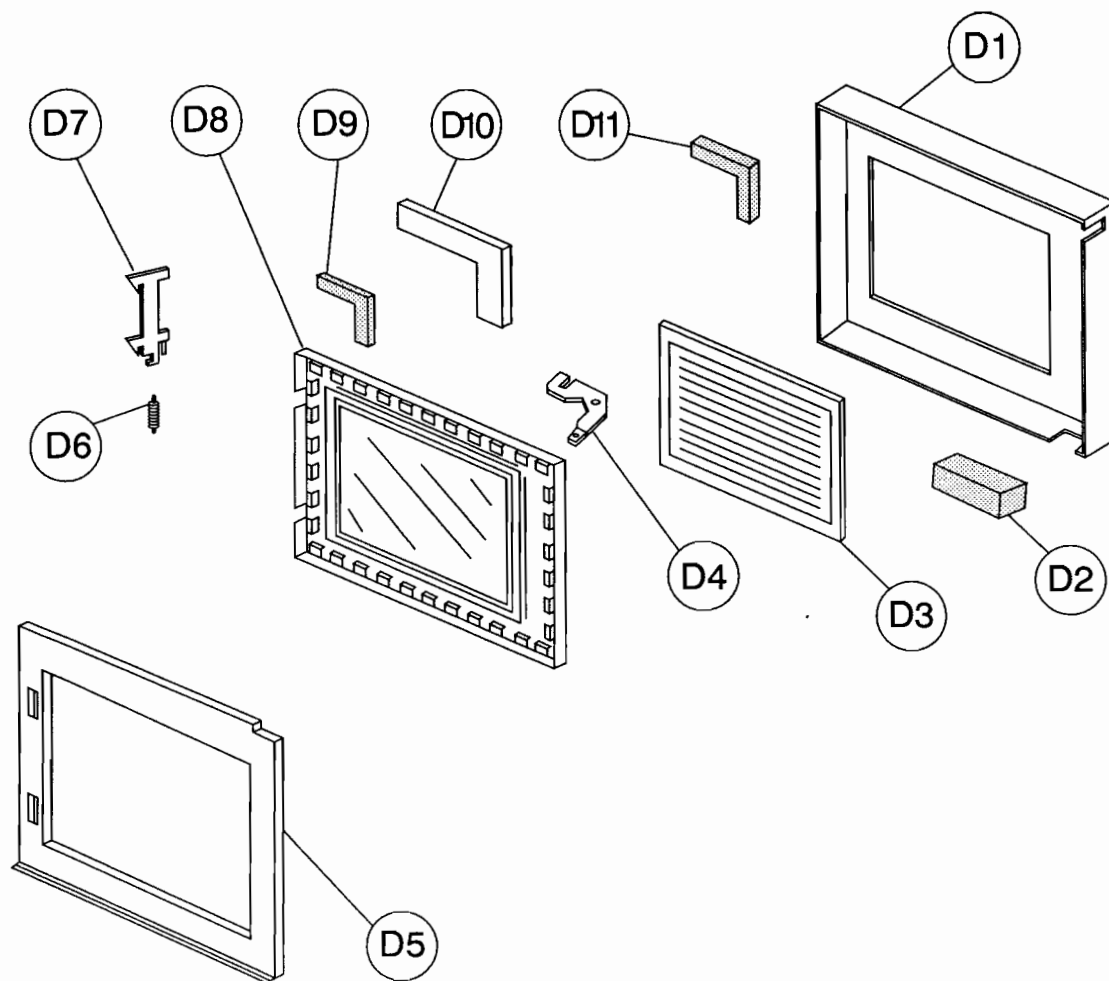
NO	PART NUMBER	DESCRIPTION	QTY	REMARKS
1	E00062Q0EP	Warning label	1	
2	E11838020BP	Back plate cover B	1	
3	E10588020BP	Back panel	1	
4	E030A8020SP	Lead wire harness	1	
5	E900C5870SP	Power cord	1	NN-B756B SPG
5	E900C5870WP	Power cord	1	NN-B756B WPG
6	AE09108A20GN	P clip	1	NN-B706B WPG
7	E400A4760JP	Fan motor unit	1	For power cord
8	E41448000GP	Orifice	1	
9	E62024000AP	Stack diode	1	
10	E606V4760JP	Protector diode unit	1	
11	E61425180AP	Shutter switch	1	
12	ANE6126X0AP	Relay (RY3)	1	
13	E09620000AP	Cushion rubber	1	
14	E400E8020BP	Air guide AU	1	
15	E030F8020BP	Lead harness B	1	
16	E48236750BP	Cam A	1	
17	E60374760GP	Capacitor holder	1	
18	E60906520GP	H.V. Capacitor	1	
19	E40086430GP	Fan blade	1	
20	E41738020BP	Shutter	1	
21	E63264760JP	Shutter motor	1	
22	XTWANE+10RU	Screw	4	For magnetron
23	2M210-M1E	Magnetron	1	
24	E22368020BP	Right heater panel	1	
25	E41748020BP	Shutter pin	1	
26	A61425180AP	Secondary latch switch	1	
27	ANE6161-3XO	Short switch	1	L-3C2-2
28	A31374830AP	Hook spacer B	1	V-16G-1C25
29	A31384830AP	Hook spacer C	1	
30	ANE6142-F61	Primary latch switch	1	V-15G-3C26
31	A30204830AP	Door hook	1	
32	E22438020BP	Adiabatic material	1	
33	E290D8020GP	Roller ring assy	1	SEE NOTE 2
34	E202K6520GP	Roller B assy	1	
35	E21315870GP	Pully shaft	1	
36	E21778000BP	Pully shaft washer	1	
37	E63264760JP	Turntable motor	1	
38	E09020000AL	Cushion rubber	1	
39	AE01008-3WO	Rubber foot	1	
40	E11088020BP	Fibre washer	1	
41	E09090000AX	Cushion rubber	3	
42	E10018020BP	Base plate	1	
43	E30076700AP	Hinge B	1	
44	E620A8000GP	H.V. Transformer	1	
45	XSN4 + 6ZS	Screw	1	For cover A

NO	PART NUMBER	DESCRIPTION	QTY	REMARKS
46	E20558020BP	Cover A	1	
47	E200A8020BP	Oven cavity	1	
48	E41028020BP	Cushion rubber	1	NN-B756B SPG
49	E110D8000HBP	Outer panel unit	1	NN-B756B WPG
49	E110D8000BP	Outer panel unit	1	NN-B706B WPG
50	E09030000CS	Cushion rubber	1	
51	E01505870GS	Warning label	1	On outer panel
52	E40248020BP	Exhaust guide A	1	
53	E09130000AC	Cushion rubber	1	
54	E22588020BP	Adiabatic strip	1	
55	E22598020BP	Adiabatic strip	1	
56	E03596540GP	Lead wire	1	Grill link
57	E41078020BP	Exhaust guide B	1	
58	E64374210AP	Lamp glass	1	
59	E64606520GP	Heater bracket A	2	
60	E09030000CD	Cushion rubber	1	
61	E09030000AK	Cushion rubber	1	
62	E09230000AD	Cushion rubber	1	
63	E60748020BP	Oven lamp bracket	1	
64	E610T6700BP	Oven lamp unit	1	
65	E630G8000BP	Quartz heater	2	
66	E60758020BP	Fluffy washer	1	
67	E22398020BP	Circulation fan	1	
68	E64178020BP	Heater bracket A	2	
69	E630H8020GP	Heater	1	For convection
70	E64188020BP	Heater bracket B	1	
71	E09020000AF	Cushion rubber	1	
72	E09020000AC	Cushion rubber	1	
73	E67597550GP	Fuse	1	10A
74	ANE6595Q50GS	Fuse B	1	1.25A
75	E692Y5670GP	Noise filter	1	SEE NOTE 1
76	E40308020BP	Air guide D	1	
77	E610U6520GP	Thermal cutout unit	1	Magnetron
78	E66798020BP	Heater cover A	1	
79	E22428020BP	Adiabatic material A	1	
80	E66808020BP	Heater cover B	1	
81	A605Y060WBQO	Thermistor unit	1	
82	E610J8020BP	Thermal cutout unit	1	Rear
83	E402T8020BP	Exhaust guide C Assy	1	
84	E09030000AU	Cushion rubber	1	
85	E490S8020GP	Convection motor unit	1	
86	E09120000BE	Cushion rubber	1	
87	AEE6075X70AP	Lamp rubber	1	

Note: 1 For component noise filter part numbers please refer to Page 9.

Note: 2 The Roller B assy contains three rollers. When replacing the Roller B, make sure all rollers are replaced together for smooth turning of the glass cooking tray.

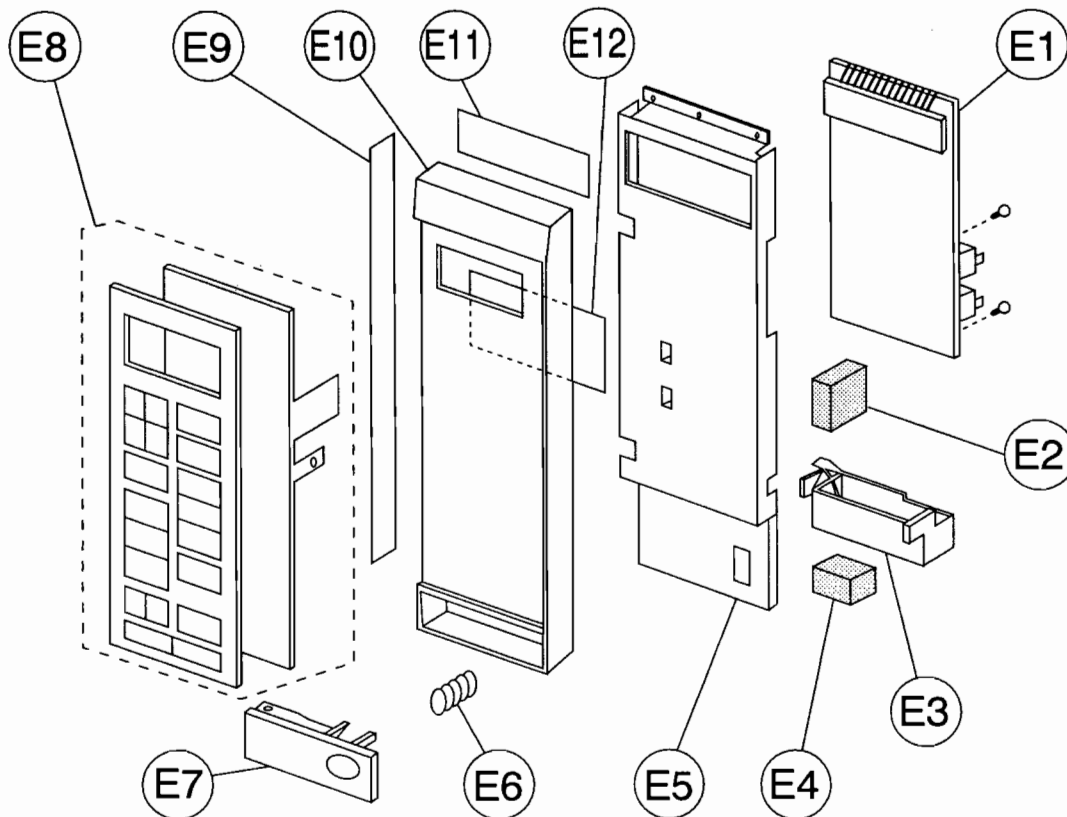
DOOR ASSEMBLY



NOTE 1: When ordering any door components please order Door C as this may become damaged during disassembly.

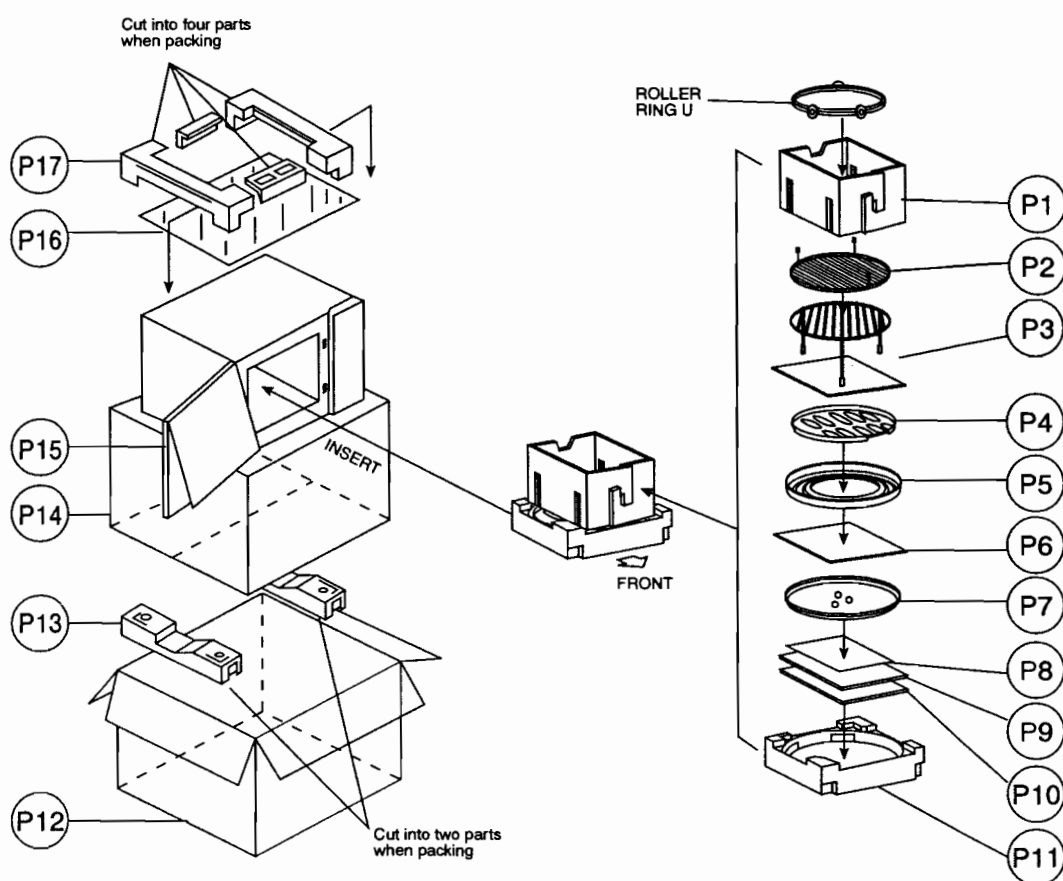
No.		Part Number	Description	Qty	Remarks
D1	*	E30018020HBP	Door A	1	NN-B756B SPG NN-B756B WPG NN-B706B WPG
D1	*	E30018020BP	Door A	1	
D2	*	E09030000CB	Cushion rubber	1	
D3	*	E31468020GP	Door screen B	1	
D4	*	E30067550GP	Upper hinge	1	
D5	*	E30858020BP	Door C	1	
D6	*	E30214000AP	Door key spring	1	
D7	*	E30188000BP	Door key A	1	
D8	*	E302K8000BP	Door E unit	1	
D9	*	E09010000AJ	Cushion rubber	1	
D10	*	E30028020BP	Door B	1	
D11	*	E09030000AJ	Cushion rubber	1	

ESCUTCHEON BASE ASSEMBLY



No.		Part Number	Description	Qty	Remarks
E1	*	E603L8020SP	D.P.C. Assy	1	NN-B756B SPG
E1	*	E603L8020WP	D.P.C Assy	1	NN-B756B WPG
E2	*	E10628020BP	Cushion rubber	1	
E3	*	E82567550GP	Door opening lever	1	
E4	*	E10498020BP	Cushion rubber	1	
E5	*	E81278000BP	Back plate	1	
E6	*	AEE80378AOAG	Spring	1	
E7	*	E80727550HGP	Door opening button	1	NN-B756B SPG
E7	*	E80727550GP	Door opening button	1	NN-B756B WPG
E8	*	E630Y8020HSP	Membrane switch assy	1	NN-B756B SPG
E8	*	E630Y8020HWP	Membrane switch assy	1	NN-B756B WPG
E8	*	E630Y8020WP	Membrane switch assy	1	NN-B706B WPG
E9	*	E00078020SP	Name plate	1	NN-B756B SPG
E9	*	E00078020WP	Name plate	1	NN-B756B NN-B706B WPG
E10	*	E80348020HBP	Escutcheon base	1	NN-B756B SPG
E10	*	E80348020BP	Escutcheon base	1	NN-B756B WPG
E11	*	E82518020BP	Water sheet	1	NN-B706B WPG
E12	*	A80025540AP	Smoke panel	1	

PACKING AND ACCESSORIES



No.		Part Number	Description	Qty	Remarks
P1	*	E01086520GP	Tray packing	1	
P2	*	E060V6520UP	Wire rack	1	
P3	*	E060V8020BP	Wire rack	1	
P4	*	E06488020BP	Splatter sheild	1	
P5	*	E06016520GP	Enamel tray	1	
P6	*	E0212-1520	Foam sheet	1	
P7	*	E06018020BP	Glass tray	1	
P8	*	E000B8020SP	Cook book	1	NN-B756B SPG
P9	*	E00038020SP	Instruction book	1	NN-B756B SPG
P9	*	E00038020WP	Instruction book/Cook book	1	NN-B756B WPG
P10	*	E01695750BP	Service centre list	1	
P11	*	E01136520GP	Tray styrol	1	
P12	*	E01028020HSP	Carton box	1	NN-B756B SPG
P12	*	E01028020HWP	Carton box	1	NN-B756B WPG
P12	*	E01028020WP	Carton box	1	NN-B706B WPG
P13	*	E01058020BP	Lower filler	1	
P14	*	E01066750BP	Vinyl cover	1	
P15	*	AEE01072Q0BP	Door sheet	1	
P16	*	E01926430GP	Protector sheet	1	NN-B706BWPG
P17	*	E01048020BP	Upper filler	1	

DIGITAL PROGRAMMER CIRCUIT

PARTS LIST

Ref. No.	Part No.	Description	Set	Remarks
RY2,RY5 RY6,RY9	AEBGG5N1A18	Power relay	4	
CN3	AEEMMD00F04W	Connector	1	
CN2	AEEMMD01D05W	Connector	1	
CN1	AEEMMD15509W	Connector	1	
CN4	AEEM09FDZBTM	Connector	1	
CN5	AEEMMD00703W	Connector	1	
BZ	AEFB22EP2002	Buzzer	1	
H1	AEGHPH0124BS	Heat sink for Q1	1	
RY1,RY4 RY7,RY8	AEGSJ1EM18B	Power relay	4	
IC1	* AEIC38121085	LSI	1	
DISP	A64566700BP	Display	1	
C10	ECA1HM102E	Capacitor	1	1000 F 50V
JPR1	ERD25VJ1ROT	Resistor	1	1R 1/4W ±5% NN-B756B WPG
T1	* E62498020GP	Low voltage transformer	1	
SP1	* E82847010AP	Display holder	1	
IC2	SN102977AN	IC2	1	
CX1	AEFFT4R19GWT	Ceramic resonator	1	
C12	ECEA1CKA100B	Capacitor	1	10 F 16V
C19	ECEA1HKA2R2B	Capacitor	1	2.2 F 50V
C11	ECEA1HU101B	Capacitor	1	100 F
Q4	UN4123-(TA)	Transistor	1	
Q3	UN4211-(TA)	Transistor	1	
Q10,Q11 Q5,Q6 Q7,Q8 Q9 Q1	2SC4038TL2Q	Transistor	7	
C18,C23 D10,D11 ZD1,ZD2 C13,C14 C15,C17 C20,C21 C22	2SD2012	Transistor	1	
	AECF50F104Z	Capacitor	2	
	AEDNERA1502	Silicon diode	2	
	AEDZ5R6ES2T1	Zener diode	2	
	ECBT1E103ZF5	Ceramic capacitor	7	0.01 F 25V

Ref. No.	Part No.	Description	Set	Remarks
R17,R20 R44,R45 R46,R47 R62	ERDS2TJ102T	Resistor	7	1K 1/4W ±5%
R13,R18 R24,R26 R29,R37 R38,R39 R40,R41 R42,R43 R25,R51 R52,R53 R54,R55 R56,R57 R58,R59 R60,R61	ERDS2TJ103T	Resistor	12	10K 1/4W ±5%
R11,R12 R48,R50 R16 R32 R27,R34 R28,R65 R15,R31 R14,R23 R36 R49 R19 D12,D13 D14,D15 D16,D17 D18,D19 D20,D21 D22,D23 D24,D25 D26,D27 D28,D29 D30	ERDS2TJ104T	Resistor	12	100K 1/4W ±5%
	ERDS2TJ151T	Resistor	2	150 1/4W ±5%
	ERDS2TJ152T	Resistor	2	1.5K 1/4W ±5%
	ERDS2TJ181T	Resistor	1	180 1/4W ±5%
	ERDS2TJ220T	Resistor	1	22 1/4W ±5%
	ERDS2TJ221T	Resistor	2	220 1/4W ±5%
	ERDS2TJ301T	Resistor	2	300 1/4W ±5%
	ERDS2TJ330T	Resistor	2	33 1/4W ±5%
	ERDS2TJ332T	Resistor	2	3K3 1/4W ±5%
	ERDS2TJ471T	Resistor	1	470 1/4W ±5%
	ERDS2TJ472T	Resistor	1	4.7K 1/4W ±5%
	ERDS2TJ914T	Resistor	1	
	MA196-(TA5)	Diode	19	

SERVICE FIXTURES AND TOOLS

EXTENSION CABLES

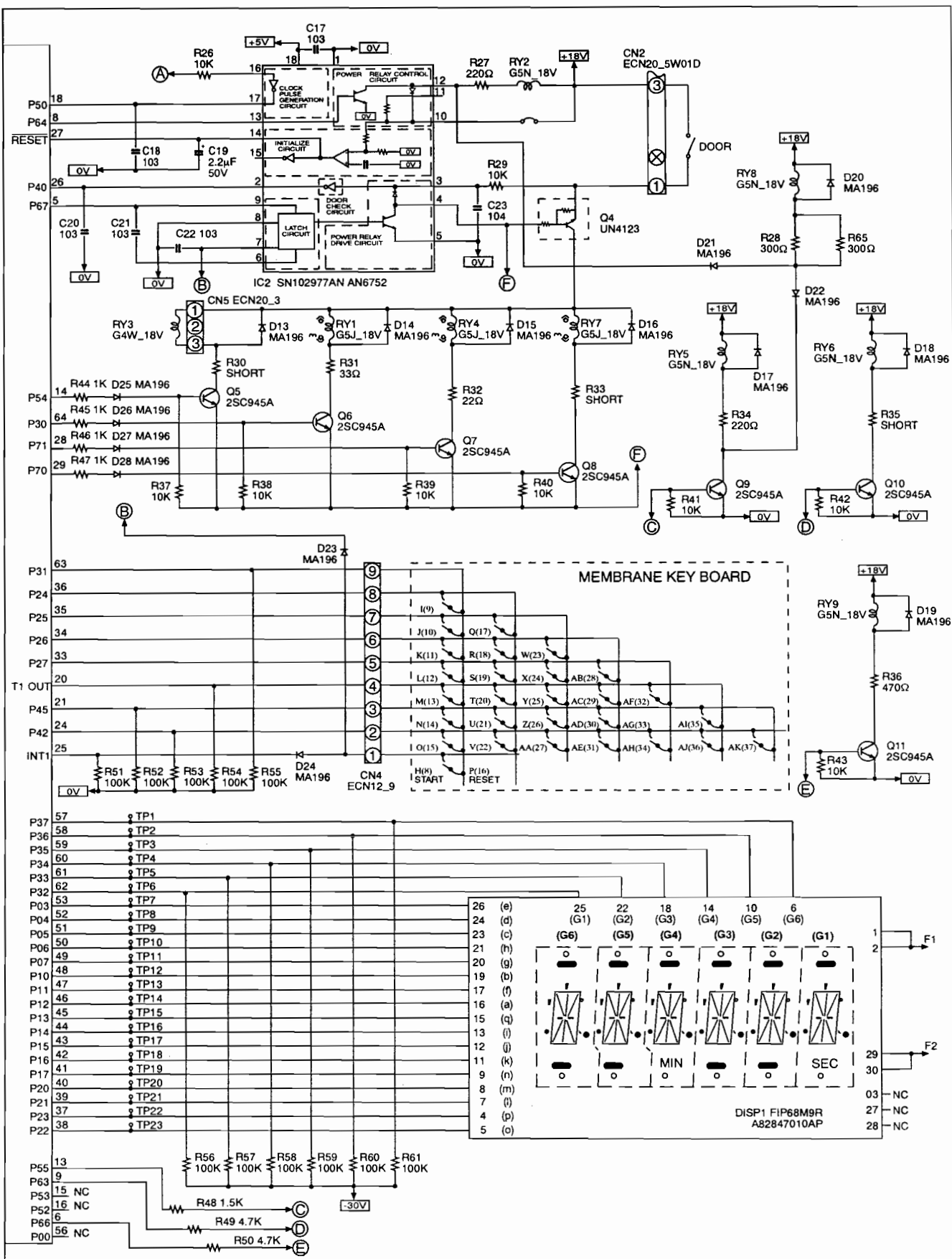
NOTE: To be used when repairing the DPC board assembly directly on the oven for easy access of the board.

Ref. No.	Part No.	Description	Set	Remarks
	AT40P004	4 pin Extension Cable	1	Cable No.47
	AT40E006	1 pin X 6 Extension Cable	1	Cable No.9
	AT40P009	9 pin Extension Cable	1	Cable No.54
	AT40P005	5 pin Extension Cable	1	Cable No.46
	AT40P003	3 pin Extension Cable	1	Cable No.48

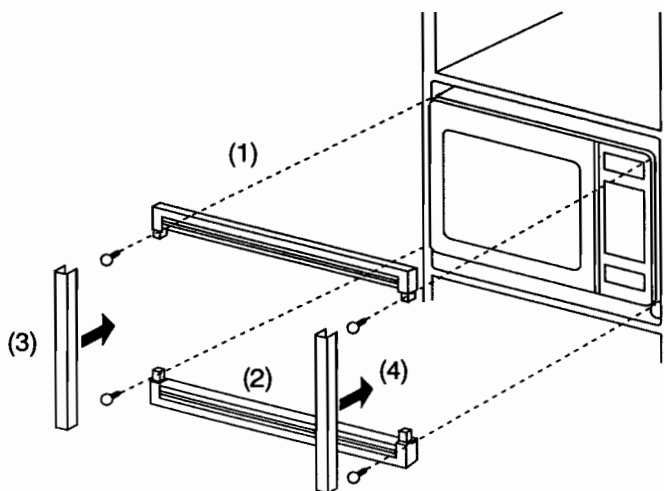
DPC COMMON CHECKER AND ITS CABLE

NOTE: To be used only when DPC common checker is available.

Ref. No.	Part No.	Description	Set	Remarks
	ANE600ZK70BP	DPC Common Checker	1	
	AT30A8020SP	DPC Checker Cable	1	



PARTS LIST FOR MICROWAVE OVEN TRIM KITS

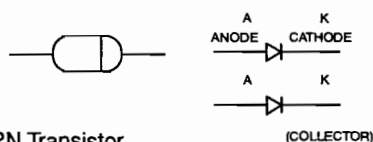


Trim Model No.	Top and Bottom Strip Ref No: 1.2	Pcs/ Set	Side Strip Ref No: 3.4	Pcs/ Set	Microwave Oven Model No.
NN-TKB06	E1603A510BP	2	E1601A510BP	2	NN-B706B
NN-TKB56	E1603A510HBP	2	E1601A510HBP	2	NN-B756B

NOTE: The top and bottom strips have the same part number and the left and right side strips also have the same part number.
These parts will be supplied on one piece per one part number.

HOW TO CHECK THE SEMICONDUCTORS USING AN OHM METER

Diode



Transistor

NPN Transistor

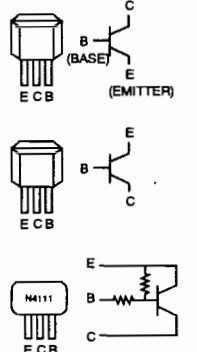
2SC

2SD

PNP Transistor

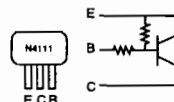
2SA

2SB



Digital Transistor

PNP Transistor



	FORWARD	REVERSE
A-K	SMALL	∞
	FORWARD	REVERSE
B-E	SMALL	∞
B-C	SMALL	∞
C-E	∞	∞
	FORWARD	REVERSE
E-B	SMALL	∞
C-B	SMALL	∞
C-E	∞	∞
	FORWARD	REVERSE
E-B	10K Ω ~30K Ω	10K Ω ~30K Ω
C-B	50K Ω ~90K Ω	∞
C-E	40K Ω ~80K Ω	∞

Made in U.K.
 S-802/B7 SPG/WPG

S.M. & C.B.S.